Seeking Constructive Alignment of Assessment in Teacher Education: Locating the Reflection in Reflective Writing

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SEEKING CONSTRUCTIVE ALIGNMENT OF ASSESSMENT IN TEACHER EDUCATION: LOCATING THE REFLECTION IN REFLECTIVE WRITING

by

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ABSTRACT

The aim of this thesis is to promote a dialogue about constructive alignment (Biggs, 1996) with a particular focus on the use of reflective writing as an assessed task in courses of teacher education and the influence it has, or does not have, on teacher reflection and/or in improving practice. The work is set against a national context in which time to reflect is being written out of teacher education as a consequence of policy which locates 'training' to teach increasingly within the busy-ness of school life.

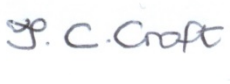
Persuaded by principles of constructive alignment and, therefore, troubled by student teachers' perceptions of complex assignments which appear to have little relevance to their practice as teachers, I have undertaken an action research study (McAteer, 2013; Norton, 2009; and Wells, 2001), beginning with a conviction that it is possible to design assessment tasks which truly integrate professional and academic requirements and influence the learning activity of student teachers in ways which are meaningful for their development as teachers. Using an adaptation of the Ward and McCotter (2004) 'Reflection Rubric' to locate characteristics of reflection within the reflective writing submitted for assessment, the study evaluated the relationship between written reflection and academic and professional attainment and found little evidence that engagement in the reflective writing assignment had contributed to the participants' development as teachers. I conclude that the assessment strategies of students and of the course had been either not aligned or destructively aligned.

The thesis narrates my journey to the adoption of a socio-constructivist perspective, leading to greater insight into the relationship between established assessment practice and the learning activity of student teachers, and a questioning of my practice. Crucially, the notion of a 'framework for assessment' is broadened to encompass all assignment-related activity, the people involved and the timeframe, in addition to the task and criteria. I conclude by identifying a desire to know more about the national view of assessment in teacher education, seeking a network of colleagues in order to explore ways in which counterparts in other institutions are supporting student teachers to develop reflective practice and assess reflective writing.

DECLARATION

I declare that this thesis is my own unaided work. It is being submitted for the degree of Doctorate in Education at the University of Bedfordshire.

It has not been submitted before for any degree or examination in any other University.

Name of candidate: Julia Clare Croft Signature: 

Date: 14 April 2015

Dedicated to Callum and Lexi
Your love of learning is like treasure to me.

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1. INTRODUCTION

> "Reflective practice has made me an informed decision-maker and afforded me better control and understanding of my actions and the context in which I operate"
>
> (Attard, 2007:159).

Attard's (op. cit.) summary of his work encapsulates my own view as I look back at the journey travelled during the life of this research and the authoring of this thesis. I agree with McAteer's conceptualisation of action research as

> "driven by a desire to understand practice, to question and critique it, and to expose it to interrogation, all with an underpinning aim of improving that practice. It is predicated upon a commitment to reflective practice, the values of democracy, and the scholarship of practice. While its purpose is stated as the improvement of professional practice, there is often an associated, more enriching, profound and positive effect on people's professional lives"
>
> (McAteer, 2013:151).

The decision to undertake doctoral study was made with careful consideration of the impact it would have on my personal and professional life. That it would require resilience, commitment and investment of time and effort was considered inevitable. There needed, therefore, to be a return on that investment and that return, in my view, would be the affirmation of the effectiveness of my practice. By the end of the study it had become clear that, far from affirming, the research and the reflection on findings brought into question principles that I had held to be 'knowns'. One of the most significant personal outcomes from this research, therefore, has been the insight into my own assumptions, preconceptions and habits and the consequent impact on my self-awareness and my capacity to evaluate educational practices. I will claim that, because the assumption was initially concealed from sight, the conclusions have characteristics akin to grounded theory. The thesis, therefore, provides an account of my learning journey as I attempt to reconcile positivist origins and tendencies with interpretivist aspirations and intentions, and as I become increasingly alert to habits and lived theories which are misaligned with espoused theories. This changing perspective has caused the approach to the study to change as it has progressed and this thesis has been organised to faithfully represent the evolution of the study. Details of the organisation of the thesis are provided in Section 1.6.

Like my personal perspectives, the local and national contexts in which the study is located have been subject to continuous change. When the study began I was the Course Leader

for the PGCE Secondary course whilst national education policy located teaching as a "master's level profession" (DCSF, 2007). During the study the PGCE was reviewed and restructured, the course leader changed, and the change to national government resulted in significant shifts in policies which determine the nature of initial teacher education. The study, then, exemplifies the complex nature of education, a theme which threads through the work.

Another thread which runs throughout the study is reflection on practice. The focus on student reflection runs alongside my own researcher reflection which has been employed as a means of assuring the trustworthiness of the work. In exploring the construct of reflection and the research around reflection as a contributor to improving teacher practice, it becomes necessary to clarify the distinction between the act of reflection and the range of strategies which can be employed to enable and benefit from that act. Two key areas for study emerge: firstly the use of 'reflective writing' as an initiator and organiser of reflective activity and secondly the interaction with others to rehearse, rationalise and inform reflective thinking.

I have concluded that reflection is an interpersonal endeavour which can benefit from intrapersonal dialogue and have offered a justification for the use of the written word as a medium through which to engage in that dialogue. In my engagement with colleagues teaching on similar courses I have found that reflective writing is a popular element of initial teacher education, often forming part of an assessment task, as it does in the case of this research. The debate about assessed reflective writing is therefore considered. That written reflection could form the basis of an assessment task is the cause of some disagreement in the literature. However, I have argued that the principle of constructive alignment (Biggs, 1996) offers a rationale for the implementation of such an assessment strategy. This research, which was developed with an expectation of finding further evidence to affirm that rationale, suggests that, whilst an assessment task built around reflective writing does have the potential to promote both reflective thinking and reflective dialogue, the assessment task cannot be considered in isolation. I conclude that the assessment environment must be considered more broadly. Hence, a study which set out to identify the characteristics of an assessment task to promote reflection has concluded with an intention to pursue further the characteristics of an assessment strategy which promotes reflection.

1.1 The relevance of this research to Initial Teacher Education providers

In his Review of Initial Teacher Training (ITT), Carter (DfE, 2015a) includes amongst his recommendations, the assertion that "[Qualified Teacher Status] is the essential component

of ITT and that a PGCE[1] is an optional academic qualification" (p.62). He argues that there is a requirement to clarify the distinction between the academic award and the "status, which is a licence to practice, achieved through demonstration of the ability to successfully meet the Teachers' Standards" and concludes that "University provider ITT programmes will therefore have both academic and professional components and awards" (p.61), noting that, historically, "there was no need to disentangle the two kinds of entity as they were all ultimately delivered by a single institution – the university" (*ibid.*). Whilst avoiding any attempt to state explicitly how, or what, university, or the PGCE, contributes to ITT, he does offer some indication of what the nature of that contribution might be, proposing that

> "ITT has a crucial role in instilling the importance of evidence-based teaching in new teachers and giving them the knowledge and skills to access, evaluate and interpret research to apply in their own teaching [and] should teach trainees to challenge and evaluate evidence [as] skills to navigate this complex landscape" (p.53).

My conclusion that this aspect is allocated to universities is based on the absence of reference to 'evidence-based practice' in the Teachers' Standards (DfE, 2012b), which are positioned as determining the 'QTS component' of ITT in the review. The review was commissioned by DfE during a period of growth in what they termed "school-led teacher training" (DfE, 2012a). Their response to the proposal to "disentangle" academic and professional components is brief "The two coalition parties have different positions on this recommendation. Therefore the government cannot take this recommendation forward" (DfE, 2015b).

In seeking to articulate what it is that HE contributes to ITE, we should ensure that universities are positioned not as ivory towers from which to view practice and theorise from a distance but as comfortable spaces (in time and/or location) in which teachers from all educational environments can come together to reflect on how we, together, contribute to learning.

1.2 Aim of the study

The aim of the study is to establish a framework for assessment in teacher education which satisfies the academic demands of a postgraduate award and at the same time engages student teachers in meaningful learning activity which contributes to their development as effective teachers. An underpinning principle of the study is the construction of assessment

[1] PGCE has been jointly used, in the report, to represent the Postgraduate Certificate in Education and the Professional Graduate Certificate in Education, because there is currently no distinction made between the acronyms for each in English ITT.

as a strategy which initiates and sustains learning activity prior to measurement and classification (or grading) of that learning. To identify the characteristics of such a strategy, the study began by considering, at the pilot stage, the following questions:

- What do student teachers need to learn in order to improve their practice?
- In what ways can that learning be initiated and sustained through an assessment strategy?
- In what ways can that learning be demonstrated?
- In what ways can that learning be measured?

However, the pilot study resulted in changes to the methodology, methods and research questions. This reflexive response is explained in Chapters 3 and 4 and the research questions for the main study are:

- What are the factors which influence student teacher engagement with the reflective writing tasks which are compulsory elements of their teacher education programme?
- To what extent does a student teacher's reflective writing portray her/his reflective practice?
- Is there a connection between a student teacher's reflective writing and her/his professional achievement?

This study considers the role of higher education institutions in developing new teachers who are effective professionals in their field, seeking to develop a framework for assessment in Initial Teacher Education which integrates professional performance criteria and academic attainment criteria such that assessment activity stimulates construction of knowledge and skills for effective teaching.

The study has emerged as a result of questions about my role as a tutor for beginning teachers on post-graduate courses of professional development. In my experience, there is duality in the role which challenges my professional decision making in relation to the developmental needs of the students and the subsequent support offered. Aligned with this tension is a common perception (anecdotally experienced in beginning and experienced teachers, school leaders and policy makers) that theory and practice (and, subsequently, academic and performance outcomes) are discrete and distinct elements of teacher education. This perception of a theory-practice gap appears to influence the expectations of student teachers from the outset and to impede the transition from understanding of theories to application and evaluation of those theories in practice. Assessment strategies in higher

education courses of Initial Teacher Education must satisfy the requirements of both professional and academic awarding authorities and, consequently, must encompass both performance-based and cognitive criteria. It is proposed that the effective integration of these two aspects of assessment, and the embedding of the assessment in the learning strategy, are key elements of a programme which seeks to champion the theory-practice-research continuum and, subsequently, develop resilient attitudes of critical analysis in continuing professional development.

1.3 The professional context

1.3.1 The local context

The focus of this study is on a PGCE Secondary Education course which leads to recommendation for Qualified Teacher Status (QTS). The course has been designed with the explicit intention to integrate the development of the professional attributes required for QTS with the academic attributes required for a postgraduate award. The course handbook has, since 2010, opened with the following statement:

> "Our aim is to equip you with the tools you need for a lifelong career in teaching. We will not 'train' you to teach. Rather, we will offer you ideas borne out of experience and research, and support you in developing your skills to use those ideas to shape your personal identity as a teacher. We will work with you to notice, question and test a range of principles, values and perspectives relating to teaching. In this period of changing policies and attitudes, it is significant that a constant theme within the discourse around teacher education is the recognition that teachers combine the best in intellectual and personal qualities."
>
> (PGCE Course Handbook 2014-15, p.2)

The handbook also sets out an expectation that student teachers will achieve that integration through reflection and an explication of what is meant by that term:

> The course integrates a range of opportunities to develop personally, professionally and intellectually. The key skill which you will need in order to make sense of the interconnections between these experiences is reflection – not a passive wait for thoughts to arrive, but the deliberate, systematic, objective, focussed analysis of theory and practice which will lead to conviction about effective teaching and deep understanding of how and why learners learn.
>
> (*ibid.*)

However, the capacity to embed the underpinning philosophy of integration must also satisfy the national and institutional structural requirements of an academic award. In order to satisfy these requirements, 'The Reflective Teacher' is presented as a standalone unit which operates concurrently with two other units. One unit focuses on developing subject specific

knowledge and pedagogy, whilst the second focuses on knowledge of the teaching profession and incorporates the professional competence standards requirements. The learning intentions of the unit are mapped to the descriptors for level seven (previously referred to as level M) in the *Framework for Higher Education Qualifications* (QAA, 2008) and, therefore, demonstration of achievement of those intended learning outcomes leads to an award of academic credit at level seven. In addition, the unit was designed with the intention of prompting and promoting reflection which contributes to the development of desirable attributes of a teacher. Therefore, although the unit operates in isolation from a structural perspective, it is designed to act as a connecting device for the other units from a pedagogical perspective. This is established by providing themes for reflective writing which are considered, by the course team, to be priorities for teacher development and encouraging the identification of links with the portfolio of 'evidence' of professional progress and achievement. Biggs' (1996) work on 'constructive alignment' originated with the development of portfolio based assessment in initial teacher education (p.360) and this common element has been helpful in developing a rationale which supports the pursuance of the construct within the existing programme. Examples of the themes for written reflection are: "inspiring and motivating learning"; "managing the learning environment"; and "questioning" (*The Reflective Teacher Assessment Brief*, 2013-14). In guiding the student, the assignment briefing employs the language of the professional standards and encourages critical self-evaluation in relation those standards, by reference to a range of sources of ideas and theories. (Appendix 1). An early submission of a first attempt is included to initiate dialogue with the unit tutor and with peers about both content and style before the final submission. Hence it is claimed that the reflective writing unit promotes systematic reflection on professional development and reflective dialogue with peers and tutors.

1.3.2 The national context

The study took place during a period of rapid transformation and increasing complexity in Initial Teacher Education. Debate is evident even in the nomenclature, with disagreement about the inferences associated with the words 'training' (in ITT) and 'education' (in ITE).[2] Changes of national government and the associated education policies have resulted in significant changes to the principles, values and perspectives which underpin the design of teacher education programmes, the position of higher education in initial teacher training and/or education, the approaches used to prepare aspiring teachers and the professional

[2] For the purposes of this thesis, I have adopted the stance articulated by Crowe and Berry (2007:31) associating 'training' with transmission models and 'education' as "a process of cognitive and affective development and change as prospective teachers learn to negotiate their developing identities as teachers." I have, therefore, used 'education' wherever there is personal choice, and 'training' where it is the language of other authors or policy-makers.

standards by which quality of teaching is measured. In the 2010 *White Paper*, the Department for Education (DfE) introduced plans for "whole-system reform" (DfE, 2010:3) claiming that "teachers learn best from other professionals" (paragraph 2.4) but also asserting that the best teachers are those who are "the most academically able" and "combine the right personal and intellectual qualities" (paragraph 2.1). As a consequence of that paper, the minimum entry qualifications for teacher training were raised, the *Professional Standards for Teachers* (TDA, 2008) were reviewed and replaced by the *Teachers' Standards* (DfE, 2012b), with the subsequent development of the *UCET, NASBTT, HEA guidance* (UCET, 2012); and Teaching Schools and the 'School Direct' route for teacher education (DfE, 2012a) were introduced.

The notion of school-led teacher education is not new nationally or internationally. Korthagen and Kessels, writing in 1999 about international shifts in approaches to teacher education, observed

> "In Great Britain, for example, a major part of preservice teacher education has now become the responsibility of the schools, creating a situation in which, to a large degree, teacher education takes the form of "training on the job."
>
> (1999:4)

The argument for this tendency is that traditional teacher education programs are said to fail in preparing prospective teachers for the realities of the classroom. However, there are various views about how school-led and university-led teacher education programmes differ. The findings of the Carter Review (DfE, 2015a) revealed that whilst there are perceptions of a difference between school-led and university-led ITT, the differences are not clear, nor was there a conclusion that one route was more effective, successful or beneficial than another.

> "Our engagement with universities, SCITTs and schools has not led us to draw any clear conclusions that any one route is better than another. We have found strengths across all routes. […] We have also found that the diversity of different routes is a strength, allowing the system to meet the needs of different schools and trainees."
>
> (p.47)

The observation was made that there was "considerable variability [and] a case for a better shared understanding of what the essential elements of good ITT core content looks like" (p.49). This has implications for the design of teacher education courses in terms of teaching and assessment strategies, allocation of time and expectations of both staff and students.

In England, then, the leadership from academic and political authorities is inconsistent and requirements for the development of beginning teachers are ill-defined. Where national criteria are specified, the support of an evidence-informed rationale is weak (see Alexander, 2008:43-71, for example) and criteria are, therefore, susceptible to variation in interpretation and application. For student teachers, this variation manifests as tensions between the, albeit genuinely well-intended, guidance and expectations of the parties who contribute to their initial development. Alexander's phrase "principle, pragmatism, compliance" (*op. cit*. p.43) encapsulates the struggle which student teachers must endure as they make decisions in their developing practice and attempt to satisfy the demands of school departments, mentors, university tutors whilst meeting the assessment requirements for both academic and professional qualifications. However, whilst this internal negotiation has been described above as a struggle, Leach and Moon (2000) offer an alternative perspective, arguing that the knowledge that a teacher must develop, in order to be effective, includes knowledge related to the national and local contexts, knowledge of the curriculum and the content within it, and knowledge of theories about teaching as well as knowledge of the learners with whom they are working. The Leach and Moon model (*op. cit*. p.396) is presented as a dynamic interaction between these elements, managed centrally by the personal identity, beliefs and values of the individual teacher. It could be argued, then, that the struggle is a necessary part of the education of a student teacher, as s/he constructs this interacting knowledge structure.

This study explores the interaction between beginning teachers and the post-graduate teacher education course on which they are registered, evaluating whether the course design is aligned to their learning and developmental needs as perceived by the course designers in one institution. Specifically, the study seeks to determine whether the programme of study offers appropriate and distinct opportunities to improve teaching practice and whether the assessment strategy recognises achievement and promotes growth, in both professional and academic aspects of the learners' development. The view of assessment as "a part of learning, not apart from it" (Leach et al., 2001 p.293) is concomitant with the principle of "constructive alignment" proposed by Biggs (1996) and with the Boud and Falchikov (2002) view that there is a role for assessment in preparing students for employment and developing attitudes of continuous learning. This is a requirement of the QAA *Quality Code* (QAA, 2014), which asserts that assessment "forms an essential element of the learning process [and that students] learn both from assessment activities and from their interaction with staff about their performance in those activities" (Chapter B6, p.4). It is the basis upon which the University of Bedfordshire Secondary PGCE course (re-approved May 2010 and April 2013) was designed.

There is also recognition of the connection between reflection and learning in the national requirements. The *Quality Code* requires reflection on the part of course designers (QAA, 2014, Chapter B6, p.12). The works of Raiker (2010) and Swanwick *et al.* (2014) provide clear mappings of qualities of reflection to the QAA *Framework for Higher Education Qualifications* (QAA, 2008) and, building on Raiker's (*op. cit*.) work, the SEEC *Credit Level Descriptors for Higher Education* (SEEC, 2010) specify reflection as a characteristic of graduates at levels 6 and above.

In exploring the literature around the evolution of ITE at M level, the concept of reflection and its place in developing professional practice, a further question arises in relation to the particular skill of academic writing. Is there an additional barrier in the expectation that outcomes are evidenced in written form? A common concern expressed by mentors is the possibility that a student teacher who demonstrates excellence in practice may not have the academic skill to articulate the complexity, originality and responsiveness of their professional performance in written form, and that the deficiency in academic writing skill may result in a level of qualification which does not accurately reflect professional achievement or potential. This study seeks to discover whether there is any evidence of a misalignment in the use of reflective writing as evidence of reflective teaching.

1.4 The personal context

The original 'germ' which seeded the reflections from which this study has formed came from the work by Raiker (2010) exploring understandings of reflection and student learning in HE. In seeking a definition of reflection, she identifies a spectrum of perceptions which range from the passive reconstruction of past events to the aspirational anticipation of what could be. (pp.47-49). Set within the local context described above, the following extract from my reflective writing sets out the personal context for the study:

> As I begin to prepare for my first meeting with a new group of student teachers and their induction into the unit of work entitled "The Reflective Teacher", the key questions underpinning my planning are: What do they need to know, and what will they want to know, about reflection? What do they need to know, and what will they want to know, about reflective teaching?
>
> My own reflections have already shaped this planning, in the first instance by making the distinction, articulated above, between what these individuals need to know and what they want to know and, subsequently, by beginning to explore what I might do, as a teacher of teachers, to align these two sets of entities (the' need to knows' and the 'want to knows'). Drawing from the experience of working with several groups of teachers, I am mindful of a common perception of theory as being separated from practice. Hence I anticipate a degree of scepticism from

some students about the relative value of this element of their teacher training course. (I have employed the term 'training' here within the context of the current national policy of referring to "Initial Teacher Training" (DfE, 2013) as the process by which a beginning teacher gains a nationally recognised professional qualification "Qualified Teacher Status" (*ibid*.)) Many student teachers (and, indeed, practising teachers) have brought with them a preconception of academic 'hoops' which must be jumped through in order to achieve the award to which they aspire. In conversations with teachers, 'theoretical' has often been associated with 'having no practical value' or in some way isolated from 'real' classroom experience. Hence my aims, in the first sessions of this unit of work, are to demonstrate a personal conviction that the skills and knowledge to be developed as outcomes of the study on this unit can and will make a contribution to the quality of their practice as teachers, understanding that their own critical evaluation of the influence of the reflective activity will ultimately determine whether or not they form the same conclusion.

There is perhaps, though, a key question which I have failed to consider so far, and which will be at the forefront of the minds of many of these students. Research into motivation of students in Higher Education (HE) (Biggs 1996, Anderson and Krathwohl 2001) would support this expectation, that further questions from the students, which should therefore inform my planning, are likely to be: What do I need to do to pass the unit? How can I gain the maximum possible grade?

Assessment has been shown to be a significant motivator of learning in students in H.E. (*op. cit.*) and as a consequence, the nature of assessment can determine attitudes to learning. This, in brief, underpins the theory of constructive alignment of assessment, which proposes that designers and authors of assessment tasks should take into account the extent to which, through the very action of engaging with the assessment task, the learner is working towards the intended learning outcomes.

However, in the particular field of teacher education, there is another specific and influential intrinsic motivator: vocational proclivity. This is significant in that, in my experience of working with student teachers, it informs decision making in relation to prioritisation of effort and time management. Where the balance of professional practice; academic study and the emotional demands associated with large numbers of professional relationships frequently results in the need to actively seek solutions to manage stress (including interruption of, or withdrawal from, studies), it is essential that assessment tasks must be seen to contribute to the professional achievement and cannot be viewed as distinct or as theory without practice-based application. That is, the tasks must be viewed by the students as having relevance to, and potential to improve, the vocation to which they have committed. Hence there is a fourth question arising: How will this help me to become a better teacher?

In my personal reflection, this returns me to the first questions posed. My response would be to provide opportunities for these student teachers to explore how systematic and focussed reflection on teaching practice can result in:

- the identification of specific development priorities

- the selection of appropriate actions from a repository of professional ideas; strategies; approaches; interventions based on evidence collated by other professionals in similar contexts
- the identification of sources of evidence by which to evaluate the influence of the actions taken
- the systematic evaluation of that evidence to inform conclusions about influence.

That is, I am proposing a model of 'reflective-practice' as 'evidence-based practice', a proposal which is explored in more depth within the study report. However, there is a break in the cycle of logic when I begin to focus on the assessment question. In order to apply the principle of constructive alignment to this unit of work there is a requirement for an assessment task which engages the student teacher in reflection on her/his practice. The unit assessment does so and requires the candidate to submit a written report of the experience and reflection which constitute the reflective practice. The assessment task, then, introduces an additional academic skill which is not an inherent feature of reflective practice. That is, the student must demonstrate effective communication of his/her reflection in writing. Anecdotal evidence drawn from post-assessment debrief conversations with student teachers leads me to understand that there are those who believe that the requirement for effective written communication of reflective practice disadvantages some candidates. Loughran's (2007) argument that reflection should not be assessed (p.129) highlights a further issue in the need to ensure that the assessment is focussed on the process of reflection, not on the content.

Although the preceding paragraphs were initiated by one moment of personal reflection at the approach of a new term, they have illustrated, in context, the sequence of thoughts which provided the impetus for this research study. The study began with a personal conviction, grounded in a body of research evidence spanning at least 100 years, that there is sound justification for developing reflective practice within any teacher education course and that principles of constructive alignment offer an approach by which to harness key motivators and thereby enhance learning, but must adapt to take account of all influential intrinsic motivators.

1.5 Related studies and influential works

My own reflection and the development of this thesis have been particularly influenced by the original work of Dewey (1910, 1933) and Biggs (1996) and the substantial works on pedagogy in the context of teacher education by Korthagen (1999, 2001, 2004), Loughran

(1995, 1996, 2002, 2007) and Mason (2004). In addition, the writing of Moon (2000, 2002, 2004, 2006) on reflection, reflective practice and, most importantly, reflective journals has contributed to my evolving understanding of the concepts studied. Moon's (2004:107-121) chapter on assessment of reflective writing is particularly relevant. However, although I have found a number of studies which explore reflection and reflective writing in ITE (Alger, 2006; Attard, 2007; Lane et al., 2014; for example) little, if any, of that work considered the effects of course assessment strategies on the learning of student teachers or questioned whether attempts to adopt principles of 'constructive alignment' (Biggs, 1996) have been effective.

Other doctoral theses related to this work have been considered and the works of Hudson (2015), McGuire (1993), Mills (2013), and Procter (2014) have been referenced within this thesis. The list of related works is provided following the list of references.

1.6 The structure of this thesis

In common with Mellor (2001), I have found the action research approach to be 'messy' and difficult to constrain within a popular structure or model. Like Raven (2006), my approach has been reflexive, shaped by the changing context within which I work and the changing understandings of that context.

> "It [reflexivity] moves beyond reflection and involves a critical exploration of not only what we know, but also more centrally, what we *do not know* (i.e., our unawareness) and *why and how* we have come to know or not to know."
>
> (p.560)

The thesis is organised to provide a truthful account of the manner in which the study evolved and is, therefore, unconventional. Hence, for example, the initial literature review in Chapter 2 is supplemented by a focused review of further literature to underpin the emerging theoretical framework in Chapter 5; and the theoretical framework of Chapter 5 is reviewed and further developed in Chapter 9. The following summary sets out the intentions of the chapters of the thesis.

The literature review seeks to summarise what has been located and read in the search for common understandings about the key themes of the research, namely reflection; reflective writing; and assessment, all within the context of initial teacher education (ITE). In order to summarise these themes effectively, it was considered important to begin by establishing the view of knowledge and learning which shapes the lens through which these concepts are viewed and the principles which underpin them. Although there is some discussion of

reflective writing in this chapter, this is a theme which is re-searched in Chapters 5 and 9, as further understanding is sought of the nature of reflective writing and the place it holds in ITE.

There is further discussion of epistemological and ontological lenses for the study in Chapter 3, as the basis for an articulation of the chosen methodology for the research. The chapter explains how a study, which had originally been conceptualised as a case study, contributed to the evaluation and revision of course design and, as a consequence, evolved into the action research study which is now presented within this thesis.

The pilot study, reported in Chapter 4, was originally planned to pilot the data collection and analysis tools with a subset of the case population. Using convenience sampling, the graduating students of the PGCE Secondary mathematics group were the participants at this stage, being the group which would be most accessible to me in the period after graduation. The findings of the pilot study led to a review of the rubric which had been adopted for the analysis of reflective writing and an acknowledgement of the need to consider whether the selection of that rubric could be justified in light of the breadth of prior research into the characteristics of reflection and the manifestation of reflection in academic writing. Furthermore, the reflection on the findings by the PGCE course team caused them to revise the design of the assessment task, as it was concluded that the task was not prompting the intended student activity. At the conclusion to the pilot study, therefore, there was a need to pause and to re-evaluate the intentions and likely contribution of the study.

It was the pause to reflect and review at the end of the pilot study which resulted in a return to the literature for a more sustained and systematic consideration of the framework for analysis of reflective writing in Chapter 5 and the articulation of a theoretical model for the main study in Chapter 6. Chapter 5, then, presents a review of recent attempts to analyse reflection in writing, linking the works back to Dewey's (1910, 1933) stages and characteristics of reflection. The Ward and McCotter (2004) rubric is retained with minor modifications.

In Chapter 6 the underpinning theories about learning, assessment and professional development in ITE are brought together to form a theoretical model which underpins the continuation of the cycles of action research which are to follow. In recognition of the limitations of written language in an interpretivist paradigm, images are developed as a mechanism by which to communicate my visualisation of those theories and the interaction

between them, although it is noted that if learning is dynamic (as it is argued in Chapter 2) then static images can represent only momentary snapshots of the theories in action.

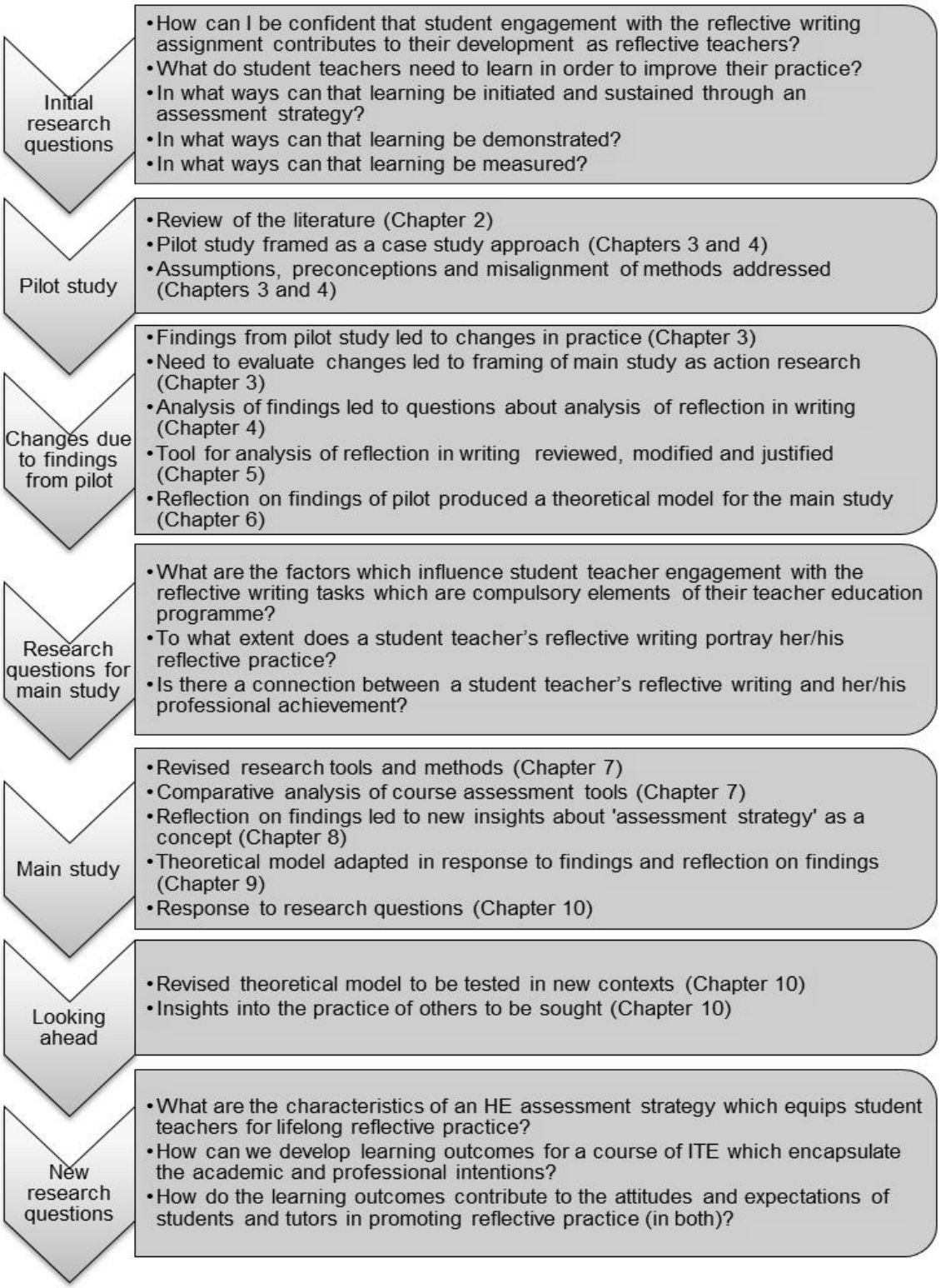
Chapter 7 recounts the implementation of the main study, the second cycle of action research, in which graduates from PGCE secondary mathematics, English and science are participants. In this chapter the findings of a systematic cross-referencing of the assignment success criteria to the reflective writing analysis rubric is discussed in full, as this aspect was completed before the analysis of the participant perceptions and outcomes. Chapter 8 subsequently reports the findings of cycle two. The findings lead to further “disturbance” (Mason, 2004) as more light is shed on the assumptions which underpin the methodology. Of particular note is the realisation that, by considering the assessment task in isolation, the contribution of other factors to student responses to the task has been understated. Whilst the study has focused on intrapersonal reflection, the findings bring to the forefront the significant influence of interpersonal reflection.

As a consequence of the findings from cycle two, the theoretical model is reviewed and enhanced in Chapter 9 and the assessment strategies of student, tutor, course designer and institution are addressed. The chapter closes with a proposal for four principles for a theoretical model for assessment.

Although Chapter 10 is the concluding chapter for this thesis, it is viewed as the opening chapter of the next cycle of action research within my institution and the beginning of a wider discussion with colleagues in other institutions about assessment strategies in ITE. The chapter draws together the main findings from the two cycles of action research and includes a proposal for the objectives of the third cycle. In addition, the chapter sets out a proposal for a dialogue with ITE providers about the way in which learning, assessment and professional development can be integrated for the benefit of student teachers.

As the evolution of the study and the structure of the thesis are unusual, I have provided an overview of the stages in the development of the study with mappings to the sections of the thesis in Figure 1.1.

Figure 1.1 Overview of the study with mapping to thesis chapters



2. LEARNING, TEACHING AND ASSESSMENT IN INITIAL TEACHER EDUCATION (ITE) - A SYSTEMATIC REVIEW OF THE LITERATURE

As explained in Chapter 1, I have set out to scrutinise and re-assess an approach to assessment which, from anecdotal evidence, I assume to be common practice within initial teacher education not only locally but also nationally and internationally. In order to undertake an informed critical appraisal I need to investigate whether there is evidence to support that assumption and to understand the rationale underpinning the practice. I have, therefore, reviewed a body of literature which explores:

- the nature of knowledge, learning, practice-based application of knowledge and professional performance
- reflection and its role in learning and in developing professional practice
- reflective writing as a process and as a skill
- the practice of assessment and its connectivity with learning.

Emerging from the literature are a number of taxonomies and frameworks which support critical analysis of the constructs of interest, namely: knowledge, learning, professional performance, reflection and reflective writing. Within the pilot for this study I employed one such framework for the analysis of reflective writing by students on a programme of ITE. However, the findings of the pilot study included a growing awareness of weaknesses, not necessarily in the framework itself, but in the methods by which I selected and adopted the framework. Whilst I was persuaded by the grounded theory approach used by the authors to develop the framework, I had made little effort to consider alternatives, trusting that my testing through the pilot study would validate the framework. As a consequence, a further review of the literature was undertaken to provide an appropriately justified framework for analysis of reflective writing. This aspect of the work is addressed in Chapter 5.

In Chapter 1, I also reported a growing awareness of unchallenged assumptions as this study has evolved. Interestingly, Dewey's century old observation remains relevant in that there is an awareness of personal habits of unquestioning "dependence upon the authority of others" (Dewey, 1910:25). The increased self-awareness resulted in a statement, in Chapter 1, of personal epistemology which seeks to make transparent the perspective from which the work is viewed. This literature review contributes to the identification and challenge of assumptions specifically by summarising contrasting views in two important areas relating to the study: firstly the place of socially mandated and personal theories in the

development of professional practice and secondly the use of reflection as an assessment tool. The findings of the review form the basis of a theoretical framework, which is conceptualised in Chapter 6 and refined in Chapter 9.

2.1 Learning, knowledge, performance and initial teacher education

In the search for what is claimed as knowledge about reflection, practice-based learning and the connection between these two, a number of researcher/authors or specific works were recommended by peers as seminal. Frequently cited names were Boud, Dewey, Eraut, Kolb, Korthagen, Loughran, Mezirow and Schön. In order to systematically assess the recognised contribution to the field and to ensure that, as far as possible, works which are judged by peers to be authoritative in the field have been considered, summative statistics have been extracted from the SCOPUS database[3]. The database is currently limited to journals. However, the potential to assess the value of other sources is supported where works have been cited in papers. Hence, for example, Dewey's (1933) work, cited 2189 times in the period 1938-2013 including, notably, over 100 times per year from 2005-2013 inclusive, has been taken to be influential.

2.1.1 Knowledge and learning – the epistemological lens for this study

2.1.1.1 Learning

In beginning to explore researchers' views about learning, it is helpful to specify the intentions of the vocabulary, because learning can be used both as noun and as verb. As a noun, 'learning' refers to a snapshot of what has been learned at a fixed point in time. As a verb, 'learning' implies fluidity and processing, a perception which fits well with constructivist notions of learning as an active and developmental process (Kolb, 1984). Hence learning is conceptualised as: building schema (Piaget, 1973); creating knowledge (Biggs, 2007); organising (Freudenthal, 1983); adapting (von Glaserfield, 1991); assimilating and accommodating (Skemp, 1971; Piaget, 1973); interacting (Vygotsky, 1978); and transforming (Kolb, 1984 and Mezirow, 2000), for example. This notion of learning as a

[3] Scopus claims to be "the largest abstract and citation database of peer-reviewed research literature with more than 20,500 titles from more than 5,000 international publishers". The database supports common search facilities and, in addition, provides citation statistics and cross-referencing facilities. http://www.info.sciverse.com/scopus/scopus-in-detail/facts Accessed 09/08/13

process of change is supported by Dewey's (1910 and subsequent) works and endorsed by Eraut's (1994) view of "knowledge creation" (p.20). Mason (2004:142) views learning as a response to "disturbance", where "disturbance" is used to describe an experience in which awareness to particular outcomes or influences is heightened, but notes that learning does not automatically follow. This observation is supported by Eraut (1994), who asserts that learners "select what is learned from what is taught" (p.7), and Loughran (2002:22). Three common features of these various conceptions are: the active nature of learning; the representation of the process of learning as the forming of connections between experiences or ideas; and the acknowledgement of a range of ways in which learning can take place including conscious and unconscious (Vygotsky, 1962) and intuitive and deliberate modes. Mezirow (2000), for example, proposes three ways of learning, asserting that

> "Learning may be intentional, the result of deliberate inquiry; incidental, a by-product of another activity involving intentional learning; or mindlessly assimilative. Aspects of both intentional and incidental learning take place outside learner awareness."
>
> (p.5)

Through an interpretivist lens, what has been learned is an individual construction which may or may not have features in common with the ways of interacting or sense-making of others. Authors have described learning as a way of "making sense of the world" (Mason and Johnston-Wilder, 2004:126) and "a way of interacting with the world. As we learn, our conceptions of phenomena change, and we see the world differently" (Biggs, 2007:13). That is not to say that an individual's learning takes place in isolation. In fact, Vygotsky (1978) argues that it cannot do so. Learning, he says, "awakens a variety of developmental processes that are able to interact only when the child is interacting with people in his environment" (p.90). This view is not shared by all as it appears to infer the absence of any capacity of the child learner (the applicability to adult learners is addressed below) to engage independently in the sense-making process. Cobb (1995) argues that "this notion elevates interpersonal social processes above intrapersonal cognitive processes […] As a consequence, the treatment of both the child's interpretations and his or her contributions to interactions is relatively limited" (p.29). Both Richardson and Cobb make reference to interactions not only with other humans but also with phenomena and ideas. Richardson's (1997) view supports this inclusion of the intrapersonal aspect of learning in her assertion that "individuals create their own new understandings, based upon the interaction of what they already know and believe, and the phenomena or ideas with which they come into contact" (p.3) and it is this intrapersonal sense-making which can be traced back to Plato as dialogue with oneself (Archer, 2010:18).

Whilst it is acknowledged that both Vygotsky and Cobb (1995:29) are discussing children's, rather than adults' learning processes, it is also recognised that Vygotsky's (1978) theories of a Zone of Proximal Development (ZPD) and social learning have commonly been applied in adult learning contexts (Padhan and Singh, 2010; Rogers and Horrocks, 2010; Warford, 2011; for example), locating the teacher or tutor as the more knowledgeable guide whose role it is to stimulate activity which enables the learner to access the ZPD, i.e. to extend the existing schema to connect to ideas which have not previously been included. This is not disregarding theories about differences between the learning of adults and children; rather, it is acknowledging that the theories of social construction of learning which were originally developed with child learners have subsequently been extended to adult learning contexts. Hence, by induction, it is proposed that Cobb's (*ibid.*) "realm of developmental possibilities" might also be applied in designing learning activities for adults. "The realm of developmental possibilities addresses the way in which […] conceptions and interpretations evolve as he or she interacts [and therefore] brings the cognitive perspective more to the fore" (*ibid.*).

It can be concluded, then, that learning takes place through a combination of intrapersonal and interpersonal activity. In the interpersonal domain, the role of others has significance. Loughran (2006:77), in his consideration of learning for teaching, suggests that "a shared experience with a valued other provides greater opportunity to reframe situations and confront one's assumptions". He is supporting, then, the place of interactions with others in the learning process. Mason and Johnston-Wilder (2004:92) propose that there is a sequence to these aspects, arguing that "Learners need not just to be 'active', but to be in the presence of others who display the 'higher psychological functioning' before they can be expected to internalize it for themselves".

2.1.1.2 Knowledge

What has been learned, that is, the network of interconnected ideas which is created by the learner either through interaction with others or through individual making of meaning, is commonly referred to as knowledge. However, the word 'knowledge', and the concept to which it refers, must itself be defined for the purposes of this study, not only as a means to make the epistemological position clear, but also because one aim of the study is to support the development of activities which contribute to student teachers' knowledge, i.e. to achieve a set of 'educational objectives' (Bloom *et al.*, 1956). If knowledge refers to that which has been learned, then it might be asserted that knowledge can take the form of cognition, behaviour, motor skills, beliefs, etc. However, debates about what constitutes knowledge and how that knowledge is developed can be traced back to Aristotle (see Eikeland, 2006, for example) and have persisted. In Bloom *et al.* (1956), The *Taxonomy of Educational*

Objectives defines “six major categories in the cognitive domain” (Krathwohl, 2002:212). In reviewing and building on the Bloom *et al.* taxonomy, Krathwohl (*op. cit*.), one of the original contributors, clarifies the distinction between knowledge and what is to be done with that knowledge, using those two aspects to develop a taxonomy of two dimensions: ‘the knowledge dimension’ consists of factual, conceptual, procedural and metacognitive knowledge; and ‘the cognitive process dimension’, consists of remembering, understanding, applying, analysing, evaluating and creating (pp.214-215). Krathwohl’s work orders the knowledge dimension from simple and concrete to complex and abstract. However, greater emphasis is placed on the hierarchical organisation of the cognitive process dimension “in the sense that the six major categories […] are believed to differ in their complexity, with *remember* being less complex than *understand* […] and so on.” (p.214, author emphasis).

Krathwohl, however, is concerned with the educational objectives in one particular context, that of a higher education establishment. In the sections which follow, attention is drawn to the influence of the environment in which learning takes place on the nature of the knowledge which is constructed. There are two aspects to this discussion, firstly the specificity of the interactions and secondly the specificity of the practice.

2.1.2 The significance of the *milieu*

What Bloom and Krathwohl have attempted is to classify types of knowledge and knowledge use in order to inform the design of teaching. The research in which the taxonomies are grounded is situated within the higher education context, and it is this aspect which has been the cause of contention for critics in other educational fields, such as professional and technical disciplines. Schön (1974:309) portrays an image of “institutionalised” separation of knowledge and practice and attitudes which perpetuate this by maintaining a separation between “the research that produces new knowledge [and] the practice that applies it”. Hence he argues that the sense-making and construction of new knowledge by practitioners about practice is neither incorporated nor valued as research in the discipline. Furthermore, he presents this as a factor which has a limiting effect on the construction of knowledge. Focussing on the research which informs that construction of knowledge, he argues that

> “Universities tend to see tasks or problems through the lens of their subjects and courses. […] It is extremely difficult in a university setting to achieve focussed long-term continuity of action and commitment to work on the institutional problems of a school.”
>
> (*op. cit.* p.310)

Although Schön was writing over 40 years ago, there is evidence that debates about the relative significance of practice-based knowledge have remained. Boud, Cohen and Walker (1993), for example, claim that "the learning which takes place through an experience is not recognised as relevant in formal learning contexts" (p.6), whilst Eraut, writing in 1994 but reprinted in 2004, suggests that "Higher education needs to develop an additional role […] that of enhancing the knowledge creation capacity of individuals and professional communities" (2004: 20). This practice-based knowledge, referred to as 'techne' or technical knowledge (Eikeland, 2006), 'vocational knowledge' (Billett, 2001) and 'professional craft knowledge' (Skinner, 2010) is not easily located within Krathwohl's (*op. cit*.) taxonomy, although there is scope for his two dimensions (knowledge and cognitive process) to be applied in the identification of educational objectives within the domain of this type of knowledge. For example, it may be possible to identify factual, conceptual, procedural and metacognitive aspects of practice-based knowledge.

This suggests, then, that learning and knowledge have a relationship with the practice or context in which the learning takes place. This notion of 'situated cognition', attributed to Lave and Wenger (1991), is affirmed by recent research such as Boud, Cressey and Docherty (2006), Watts and Lawson (2009), Skinner (2010), Malthouse, Roffey-Barentsen and Watts (2014) and Pereira (2014), for example. Theories of situated cognition recognise that the interactions which form part of the process of learning include interactions with the *milieu* in which the learner is located. Hence the knowledge which is constructed as a consequence of those interactions is characterised by features of that *milieu*. Lave and Wenger (*op. cit.*) conceptualise this *milieu* as a "community of practice [i.e.] a set of relations among persons, activity and world, over time and in relation with other tangential and overlapping communities of practice" (p.97) arguing not only that knowledge is shaped by the *milieu*, but that the meaning is specific to it. "A community of practice is an intrinsic condition for the existence of knowledge, not least because it provides the interpretive support necessary for making sense of its heritage" (*ibid.*). Learning, says Skinner (2010:280) "is a function of the activity, context and culture in which it occurred".

2.1.2.1 Knowledge in the various *milieu* and communities of practice for beginning teachers

This study is concerned with the process which leads to qualification as a teacher as well as an award for academic achievement. In addition, the study is concerned with particular educational practices. Hence it is important to consider whether the learning which takes place as preparation for teaching manifests different qualities or characteristics than learning for academic awards. Three 'intellectual virtues' (Wiliam, 2008:437), *episteme*, *techne* and *phronesis*, are attributed to Aristotle (Korthagen *et al.* 2001; Eikeland 2006; Wiliam, 2008;

and Kinsella 2010) and have formed the basis of the work of Schön (1983, 1987) and Eraut (1994), for example. Wiliam (*ibid.*) indicates how, in the context of research in education, these might be integrated so that educational research "can become a powerful force for acting well in the world" (*op. cit*.). Kinsella (2010) has a similar view in the context of educating health professionals, proposing that, whilst there are differences in types of knowledge, they support each other. She offers "a notion of phronesis (wise action) as a complement to episteme (scientific knowledge) and techne (pragmatic knowledge) in professional life" (p.565). Loughran (2006) is more assertive, proposing the deliberate and planned integration of activities to develop the different types of knowledge:

> "the reality is that although it is indeed helpful to know the general rules that are at the heart of episteme, it is at least equally important to also know enough of the concrete details of situations and to be experienced in deliberating over such details to know whether the rules may or may not apply in the given case; or whether other rules might be more helpful to the situation."
>
> (p.64)

A key theme of Schön's (1983) consideration of the nature of professional knowledge is the assertion that adaptability and responsiveness to "complexity, uncertainty, instability, uniqueness and value conflicts" (p.14) are central to effective practice. This leads to a view that the practitioner must "choose among multiple approaches to practice or devise his own way of combining them" (p.17). One view is that this implies an interaction between the intellectual virtues; if *episteme* is connected with 'choose', *techne* is connected with approaches, and *phronesis* is connected with devising ways of combining approaches. However, not all critics of Schön's work support that interpretation and Schön himself asserts that there are difficulties with this perception due to the challenges of articulating technical knowledge and perceptions of the status of that knowledge as in some way inferior (p.26). He offers a critical analysis of technical rationality, which he defines as "instrumental problem solving made rigorous by the application of scientific theory and technique" (p.21). This construct proposes two elements to professional expertise: firstly holding a body of knowledge which is specialised and specific to the practice or field; and secondly demonstrating the application of that knowledge to the range of circumstances or contexts within which that practice is located. The construct assumes that the body of knowledge is fixed and bounded and that the situations to which that knowledge is to be applied are clearly defined and can be categorised. In this model then, learning for teaching requires immersion in the practice and the support of a coach who is able to model practice to be mimicked and articulate the decision making process. This has commonly been referred to as an 'apprenticeship-type approach' (Arnold *et al.*, 2012:282) and can be viewed as one

justification for school-based teacher education. However, Schön proposes that the model is flawed because the positivist assumptions of bounded knowledge and clearly defined situations are incorrect. His image of professional practice is one of "high hard ground where practitioners can make effective use of research-based theory and technique, and […] swampy lowland where situations are confusing messes incapable of technical solution" (p.42). Knowledge, he argues, is constructed through the interactions between the practitioner and the context. Loughran (*op. cit*.) agrees:

> "Moderating the roles of episteme and phronesis requires expertise. It is not that one is more important than the other, both inform good teaching, but it is the manner in which each are called upon and used […] Knowing of the general may be important in shaping the nature of knowing about, or recognizing a problem; knowing of the particular is crucial in expertly responding to that problem."
>
> (p.65)

Biggs' (2007:41-43) typology of knowledge also supports this notion of the importance of connectedness between kinds of knowledge. His typology defines declarative, procedural, conditional and functioning knowledge. Functioning knowledge, he explains, "is flexible and wide-ranging […] involves declarative knowledge (the academic knowledge base), procedural knowledge (having the skills) and conditional knowledge (knowing the circumstances for using them)" (p.43). Developing functioning knowledge "is a matter of addressing and integrating several domains of knowledge" (*ibid.*). Because Biggs (*op.cit*.) is working within the context of university-based learning, his articulation of procedural knowledge as "a matter of getting the sequences and actions right, knowing what to do when a given situation arises" and conditional knowledge as knowing "when, why, and under what conditions one should do this as opposed to that" might appear to over simplify domains of professional knowledge. However, he does assert that "professional knowledge is functioning, specific and pragmatic", thereby affirming the specificity alluded to earlier. DfE (2015a) appear to have adopted this typology in the recent review of ITT. The report refers to subject knowledge (pp.49-52) and subject pedagogic knowledge (p.52) with language which infers aspects of knowledge which are to be transmitted or given (p.53) and therefore declarative, observed (p.11) and therefore procedural, and critically interpreted (p.53) and therefore conditional. The report talks about 'covering' course materials (p.52) and teaching "trainees to challenge and evaluate evidence" (p.53). There is real tension in this rhetoric, with the notion of 'trainee' inferring someone who is learning to replicate patterns of behaviour, whilst the aspiration to 'challenge and evaluate evidence' infers someone who is engaging in critical studentship in the field.

2.1.2.2 Knowledge, learning, *praxis* and the *practicum*

To learn about professional practice, then, one must observe and experience the uncertain landscape and have opportunities to interact with, and evaluate it. That experience, in the case of the student teacher, is typically achieved through the school experience *practicum*. Education departments from all the UK governments of this century have agreed on this point, with minimum totals for days in school set out in the requirements for ITT (DfE, 2014a:6). DfE (2015a) appear to be in agreement in the most recent review of ITT, asserting that "ITT should […] provide an environment for new teachers to learn from our best teachers" (pp.3-4) and emphasising the importance of the opportunities afforded by that experience to observe experienced teachers: "Well-planned experience […] allows trainees a significant opportunity to […] observe specialists in action"; noting the need to "understand the importance of observation" (p.11). Lave and Wenger (*op. cit*.), in what is now referred to as "situated learning theory" (Warhurst, 2008) offer a justification for the *practicum* as at least one element of a teacher education programme insofar as the *practicum* (or school experience) positions the student teacher for interaction with the activity, context and culture of the practice from and about which they are to learn. Justification is also found in the work of Kolb (1984), whose discussion of experiential learning acknowledges the "diverse developmental pathways that exist within different disciplines and professions" (p.163) and proposes three developmental stages of experiential learning which include "specialization, the selection and socialization of learners into specialized areas of knowledge" (p.162) (Author's spelling 'specialize'). Kolb views learning as a consequence of "the resolution of conflicts" (p.29) and locates these conflicts as arising in the lived experience, citing the conflict between "concrete experience and abstract concepts" and the conflict between "observation and action" (*ibid.*). He, therefore, describes learning as "an holistic process of adaptation to the world" (*op. cit.* p. 31) and makes the connection with Freire's concept of *praxis* as "reflection and action upon the world in order to transform it" (Freire, 1974:36). The teaching experience, or *practicum*, therefore appears to be recommended for those who are learning about teaching. Whilst Eraut (1994), in seeking to define professional knowledge, proposes two types of workplace learning: informal and formal, many proponents of *praxis* argue that the separation between these is indistinct. Arnold *et al*. (2012), for example, develop a "concept of *praxis* as action, reflection, theorising and change in cycles of constant social practice [which] conceptualises knowledge as arising from necessity in relation to the purposes, viewpoints and constraints of others" (p.282) and Iredale *et al.* (2013:198) consider Aristotle's view of *praxis* as reason coupled with practice and Bordieu's (1977) view of 'theory based upon practice'. Kemmis (2010:10) notes that interpretations of the word can be located within two broad geographical areas, but argues that the differing

interpretations both have merit in the context of "educational action" (*op.cit*.). The purpose of the *practicum*, then, is to support the development of functioning knowledge and *praxis*.

Coffey (2010) summarises recent research on the place of the *practicum* in teacher education and concludes that it does have an important role to play. The rationale is, however, limited to broad statements about the relevance: "clinical experiences played an important role in teacher preparation", "allow teachers to better understand the students' out-of-school experiences" and "are also important because pre-service educators enter teacher education programmes with strong beliefs and values about teaching and learning" (*op. cit*. p.336). Hence the prevalence and general acceptance of a *practicum* as part of teacher education and the priority placed by policy makers on school-based teacher training appear to represent an affirmation of the situated nature of teacher knowledge. Yost, Sentner and Forlenza-Bailey (2000) articulate a more defined rationale: "Teachers must be able to look at multiple perspectives of the situation and identify a rationale for alternative solutions. Teachers must also take into consideration the broader social, political, moral, and economic context of the problem." (p.47). Common to both works is the importance of integration of the *practicum* learning with other aspects of the programme (which Coffey refers to as coursework). Loughran (2006) agrees, noting that "although the place of experience is seen as central to learning it can equally be argued that experience is also easily mistaken as learning" (p.22). The purpose emerging is the accumulation, not of a set of teaching tools or skills, but of a set of perspectives through which to view the learner experience and therefore make decisions in action. Arnold *et al.* (2012), discussing their approach to teacher education, describe this as

> "a framework of ethical professional practice that recognises learning as occurring through social practice, where learning is most significant and productive when arising from community interest and activity".
>
> (p.282)

This is not straightforward. Like Arnold *et al.* (*op. cit*.), Webster-Wright (2010) finds "dissonance between professionals' experiences of learning at work and rhetoric from the workplace, professional associations [and universities] about developing professionals" (p.145). She recognises the non-linearity and absence of ordered curricula which makes systematic planning for professional learning inaccessible and seeks to "devise ways of support that are congruent with the open-ended and idiosyncratic way in which professionals learn, whilst respecting the diversity and complexity of such experiences" (p.195). Perhaps this observation is a consequence of instability arising from changing perspective or paradigms (Green *et al.*, 2013:249) as educators seek to understand their own role.

> "Effective learning (at work) is now known to: be interactive and long term; involve multiple opportunities for cycles of engagement and reflection, and collaborative participation; create trusting relationships and 'investigative cultures'; and pay particular attention to 'proximity to practice'"
>
> (*op. cit*.)

This "pendulum swing" (Robinson, 2004) between an emphasis on practice based training and a theoretical emphasis characterises the history of the development of teacher education. Although there is an underlying trend of recognising teaching as both a profession and an academic pursuit, illustrated, for example, by the graduate entry requirements introduced in the 1960s and the professional qualification in the 1970s (Bailey and Robson, 2002, p.326), there is little evidence of a common understanding of the justification for academic ability or intellectual capacity as pre-requisites for effective teaching (Maguire, 1993 p.31, for example). Similarly, the connection between academic activity and developing practical competence is not agreed by all (Seaborne, 2010:21). Ward and McCotter (2004) suggest that the requirement to satisfy a set of professional standards can be a barrier to learning, "often viewed as closing the door on the need to ask questions" (p. 244). In seeking greater understanding of this connection, the following section explores what knowledge is necessary for good teaching and what is particular about learning as preparation for teaching.

2.1.3 Learning as preparation for teaching

2.1.3.1 The knowledge that is necessary for good teaching

Korthagen (2004) addresses the question of teacher knowledge from a humanistic perspective and considers "the essential qualities of a good teacher" in order to inform teacher educators about the role they play in helping "people to become good teachers" (p.78). In his discussion the focus is on qualities rather than knowledge and his emphasis is on individual values and the influence of those on teaching and on learners. This perspective, highlighting the interpersonal and intrapersonal aspects of the role, is helpful in seeking to understand the complexities of developing as a beginning teacher. However, there is broad agreement that teacher knowledge encompasses far more than how to enact the role and Loughran (2006) warns that there are risks associated with failing to define teacher knowledge, including the perceptions of the nature of that knowledge by both student teachers and external observers.

> "The lack of serious consideration of teacher's professional knowledge suggests that learning to teach can easily become too personal and not sufficiently balanced by understandings derived from an articulation of practice, underlying beliefs and cognition and conceptualisations of the development of knowledge in

> and/or for action. Without serious attention to teachers' professional knowledge, despite the best intentions and efforts of all involved, learning to teach may then still be misinterpreted, or unwittingly perceived, as largely comprising technical competency and the accumulation of teaching procedures."
>
> (p.46)

Loughran's view echoes that of Shulman (1986), who, in his critique of skills-based assessment of teachers, proposed three categories of "knowledge that grows in the minds of teachers" (p.9): content knowledge, curriculum content knowledge and pedagogical knowledge. He further proposed three forms of knowledge: propositional knowledge, case knowledge, and strategic knowledge. However, Shulman's work is most helpful, not because of these classifications, but because of his articulation of the manner in which they are used.

> "What distinguishes mere craft from profession is the indeterminacy of rules when applied to particular cases. The professional holds knowledge, not only of how – the capacity for skilled performance – but of what and why. The teacher is not only master of procedure but also of content and rationale, and capable of explaining why something is done."
>
> (p.13)

There is confirmation here that teacher knowledge is specialised and contextualised. Hiebert, Gallimore and Stigler (2002) agree and argue that practitioner knowledge should be organised and managed in order to achieve recognition as professional knowledge. They distinguish between practitioner knowledge, that which is "linked with practice", "detailed, concrete and specific" and "integrated", and professional knowledge, which "must be public", "storable and shareable" and "requires a mechanism for verification and improvement" (pp.6-8). Yost, Sentner and Forlenza-Bailey (2000) also agree and propose that it is this broader knowledge base that provides the teacher with the resources required for informed reflection on the impact of her/his teaching:

> "Opportunities to construct a personal knowledge of learning theories and discuss issues relating to diversity and social, political, and economic forces that impinge upon schools will provide preservice teachers with a firm knowledge base from which they can critically reflect on the practice of teaching."
>
> (p.47)

Shulman's model, then, is a helpful starting point, but does not capture that situated, interactive, indeterminate and value-laden quality of teacher knowledge which is agreed by the researchers above. Leach and Moon (2000) resolve this dilemma, presenting a model which locates subject knowledge, school (or context) knowledge and pedagogic knowledge dynamically and interactively around a central core of "personal constructs" which they

describe as “a complex of identity, [...], educational goals and a belief in the purposes of the ‘subject’” (p.397). Adding a further level of complexity, Ellis (2007) asserts that even subject knowledge is not bounded and contained. Rather, she argues, that subject knowledge is “communal, a form of collective knowledge” (p.458) and “relational, in that it is accessed and developed within existing social systems” (p.459). For beginning teachers, “success in accessing and engaging with subject knowledge [...] depends in large part upon their capacity to build relationships” (*ibid*.).

Teacher knowledge, then, is a complex, dynamic, responsive and value-dependent interaction between groups or sets of ideas and experiences. . Teacher education programmes must take account of what is generalisable, what is situated and what is individual in order to support beginning teachers in developing that knowledge and this has implications for the design of an appropriate *milieu* for the learning.

2.1.3.2 Approaches to the development of teacher knowledge

Korthagen’s (2004) perspective is in contrast to that of Dewey, captured in Archambault (1964), who views teacher development as a scientific, if somewhat organic, enterprise. He proposes that a teacher should "make actual practice [...] a matter of reason" (p. 196) by using ‘native tact and skill’, ‘experience’ and ‘authoritative instruction in methods and devices’ (p.198). Teacher development, he argues, should provide "the best opportunities for the exercise of native capacity". It is not a question of "suppressing or superseding, but of cultivating native instinct, of training natural equipment to its ripest development and its richest use." (p.199). He proposes that practice (as in rehearsal) must be "based upon rational principles, upon insight into facts and their meaning" in order to develop effective teaching. He talks about "power in grappling with the new and untried" and becoming "the master of principles which he can effectively apply under novel conditions" (p. 201). Eraut (1994, 2004) supports this notion of instinctive knowledge of practice, arguing that “choices made during the course of teaching are largely intuitive” (p.53) and noting the barriers to deliberative action arising from the need to act responsively and instantaneously to episodes as they arise. There is an implication that knowledge use must be intuitive and he sets intuitive response as distinct from deliberative response. That is not to say that intuitive choices are not learned over time. His argument is that, through immersion in the practice, knowledge of how to act ‘in the moment’ (Mason, 2004) is developed. He asserts that

> "There is little opportunity to notice or think about what one is doing. Significant new knowledge about teaching cannot be used without being integrated [...]

> modifying both the most fundamental and the most intuitive aspects of their practice"
>
> (p.53).

He notes that any such process will be uncomfortable for the learner as "it involves deskilling, risk and information overload". Billett (2002:457) contests this view, arguing that workplace learning is not informal,

2.1.3.3 A curriculum for learning in teacher education

The requirement for both practice-based and academic knowledge in developing as an effective teacher has been supported by education policies of both the Labour government of 1997-2010, which espoused teaching as “a highly skilled, high status occupation” (DCSF, 2007:4.24) and the current coalition government, who assert that the best teachers are those who are “the most academically able” and “combine the right personal and intellectual qualities” (DfE, 2010:2.1). The methods by which those skills may be developed and demonstrated gain less agreement. DCSF (2007) advocated Masters level qualifications for all teachers, promoting the accreditation of the Postgraduate Certificate in Education with credit at Masters level and the introduction of the bespoke Masters in Teaching and Learning (MTL). The underpinning principles were that high quality teaching depends on secure subject knowledge, reflection (which will be discussed in depth later in this review) and sharing of practice, and engagement in practice–based research. Whilst the present Department for Education steered policy away from Masters degrees, instructing the Training and Development Agency (TDA) to cease the provision of funding for MTL (Gove, 2011 p.3) and to position teacher education within schools, there remains a distinct emphasis on secure subject knowledge and academic accreditation for professional development. Within that development, however, the relevance of, and context for, academic ability was not clearly articulated. The Commons Select Committee report, for example, addressed entry requirements and QTS skills tests in literacy, ICT and numeracy in order to “[Raise] the academic calibre of teachers” (Children, Schools and Families Committee, 2010), but offered no justification. More recently, the Carter Review of ITT (DfE, 2015a) argued that “It is important to be clear that there is a distinction between an academic award […] and a status […] achieved through demonstration of the ability to successfully meet the Teachers’ Standards” (p.61). The review noted that distinguishing between the academic and professional components and awards had previously been unnecessary but is needed now as the range of routes increases and schools are increasingly assuming a lead role. Universities were positioned in all ITT routes as the “partner who could, in some form, award the academic award” (*ibid.*). The lack of clarity about the learning objectives of the academic

award is a consequence of the variation in the requirements for that academic award in the institutions which participated in the review (p.62). Clearly that lack of agreement is not constrained to the ITT providers, as the Government response to the review, DfE (2015b) noted that "the two coalition parties have different positions on [the] recommendation [in the review] that QTS is the essential component of ITT and that a PGCE is an optional academic qualification" (p.6). Whilst it is agreed that "ITT has a crucial role in instilling the importance of evidence-based teaching in new teachers and giving them the knowledge and skills to access, evaluate and interpret research to apply in their teaching" (p.53), there was no implication that this aspect was not part of the professional 'component' and there was an argument made that, whilst "universities can play an important role […] the best practice […] is where school-based trainers are also actively engaged with research and evidence-based teaching" (p.28). However, there is tension in the Government response to this aspect of the review, due to the reliance on the current professional standards, *The Teachers' Standards* (DfE, 2012b), and the associated training criteria, (DfE 2014a), for a specification of the learning objectives for student teachers. Whilst the review espouses "the importance of teachers taking an evidence-based approach" (p.4), it also notes weaknesses in this aspect of the initial preparation of student teachers and attributes this to the lack of explication of this as a requirement for QTS. The recommendation is made to introduce a new professional standard to address this.

What is clear in the most recent policy statements for ITT in England is that what must be learned in the preparation to be a teacher is not easily definable, and that the professional standards which are alleged to set out the scope for that learning do not align with other espoused theories emerging in policy. There is misalignment between the espoused theories articulated through these policy changes and the lived theories which are embedded within the methods used to evaluate the quality of teaching. This dichotomy is not restricted to this country. Korthagen (2004) recounts the development in The Netherlands of a

> "performance based or competency based model in teacher education" in which lists of "teaching behaviours [were] translated into the concrete competencies that should be acquired by teachers"
>
> (p.79).

Competencies are defined as "an integrated body of knowledge, skills and attitudes. As such, they represent a potential for behaviour, and not the behaviour itself. It depends on the circumstances whether the competencies are really put into practice" (p.80). He notes the perpetual tension between policy-makers', researchers' and practitioners' views but suggests that the "classical dichotomy [fails to take account of the] various levels in people

that can be influenced [and] directly observed by other people" (p.80). In his 'onion model' he presents layers or levels, each of which offers a different perspective of "the essential qualities of a good teacher" (*ibid.*). His concern is with reconciling the various representations of teacher knowledge to determine appropriate "interventions" which teacher educators might implement to support construction of that knowledge (p.87) and he offers the layers of the 'onion model' as providing "support in supervising the reflection processes of teachers, because it focuses attention on the possible contents of that reflection" (*ibid.*).

McNally *et al.* (2008), considering the *Standard for Full Registration* (SFR), the professional standards which must be met by beginning teachers in Scotland, are also concerned with their role as teacher educators in the design of a curriculum which supports their students to engage critically with the SFR rather than to use it "as a checklist to fulfil a bureaucratic requirement" (p.288). They suggest that the difficulty arises because the SFR is "inevitably general in its expression and serves a rather different purpose, perhaps more accurately as a statement of public accountability" (*ibid*.). By listening to beginning teachers as they reflect on their development, the authors search for evidence of the development of the competencies expressed in the standard and conclude that developing as a teacher is transformational, that it challenges preconceptions and assumptions and is, therefore, concerned with identity formation:

> "Teaching cannot just be assimilated as a craft or set of technical skills […] or even as parts of professional knowledge[…] The various standards and collections of competence requirements may be laudable, vaguely articulated aspirations that may help illuminate but cannot of themselves hold the key to successful teaching or acceptance as a teacher."
>
> (p.295)

They conclude that standards and policy are not sufficient to define a curriculum for ITE but may have a place "in the rhetoric of product rather than process" (p.296). In other words, they concur with Korthagen's (2004) view that the professional competencies or standards can be perceived as a starting point for discussion about, or reflection on, development as a teacher. Reflection, it appears, has a role to play in connecting professional standards, professional knowledge and academic knowledge. It establishes the possibility of the interplay between *episteme* and *phronesis* and of procedural and conditional knowledge and, therefore, of *praxis* and functioning knowledge. In the following section the concept of reflection and the place it does, or should, hold in learning and in developing professional practice will be discussed.

2.2 Reflection and its role in learning and in developing professional practice

The King and Kitchener (2004) summary of the qualities of a reflective thinker offers a rationale for an aspiration to promote reflective thinking within teacher education in order to promote the evidence-based teaching which is the espoused intention of ITE in England. (DFE, 2015b).

> "Reflective thinkers consistently and comfortably use evidence and reason in support of their judgements. They argue that knowledge claims must be understood in relation to the context in which they were generated, but that they can be evaluated for their coherence and consistency with available information. Because new data or new perspectives may emerge as knowledge is constructed and reconstructed, individuals using assumptions of reflective thinking remain open to re-evaluating their conclusions and knowledge claims."
>
> (King and Kitchener, 2004, p.7)

This summary successfully addresses the concerns of Grimmett (1987) to answer the question:

> "Is research-derived knowledge seen as a source for mediating action in the sense that the purpose of reflection is to *direct* teachers in their practice; or is such knowledge regarded as *informing* practice in the sense of providing a rich basis for selection as teachers *deliberate* among competing alternatives for action; or does research-derived knowledge constitute one source of information whereby teachers *apprehend* practice as they reconstruct their classroom experiences"?
>
> (p.11, author's emphasis)

as the former argument negates the need for a choice between the three options, arguing instead for a weaving together of all three.

The discipline of reflection was defined and advocated by Dewey (1910, pp.27-28) as the means by which learners make sense of experiences, and this work has unceasingly underpinned research into learning from experience for over 100 years. (See the introduction to this chapter.) Dewey developed his theories about the nature of thinking and of learning over at least 40 years. The audience for his work was not explicitly stated in his initial work, although the implication was that he was writing for educators. In later work he did 'speak' directly to the teacher (Archambault, 1964, pp.195-211) and about teacher development (*ibid*. p.199). In the following sections, three aspects of Dewey's work on reflection will be explored for their relevance to teacher education: the purpose of reflection, characteristics of reflection and prompts for reflection. These three aspects will then be summarised to offer a justification for the place of reflection in a programme of teacher education.

2.2.1 The purpose of reflection

Dewey (1933) describes reflective thinking as "(1) a state of doubt, hesitation, perplexity, mental difficulty, in which thinking originates, and (2) an act of searching, hunting, enquiring, to find material that will resolve the doubt, settle and dispose of the perplexity" (p.9). His view of reflection as the deliberate searching for a solution to a problem is one which is supported widely. Schön's (1987) model of reflection distinguished between reflection-in-action, which he described as "[thinking] about doing something while doing it" (p.54), and reflection-on-action, described as "think[ing] back on a project they have undertaken, a situation they have lived through, and explor[ing] the understandings they have brought to their handling of the case" (p.61). In agreement with Dewey, he acknowledged that such reflection may be either deliberate or incidental, (Kilbourn, 1988, asserted "we do it all the time" (p.93)) and argued that learning about practice is a consequence of that reflection. Kilbourn (*op.cit*.) challenges that view, asking "how do we avoid simply looking at our experience in ways that themselves have become habitual?" (p.94). In their summary of the literature on reflection in teacher education which followed Schön's work, Grimmett *et al.* (1987) summarise three conceptualisations of reflection: "thoughtfulness that leads to conscious, deliberate moves, usually taken to 'apply' research findings or educational theory in practice", usually associated with epistemological views of technical rationality; deliberation and choice "among competing views about teaching" and "anticipation of the consequences" of those choices; and "reorganization or reconstruction of experience that leads to (1) new understandings of action situations, (2) new understandings of self-as-teacher or the cultural *milieu* of teaching, or, […] (3) new understandings of taken-for-granted assumptions about teaching" (pp.11-12). They assert (and Schön concurs) that Schön's notion of reflection is located within the third of these constructs.

Korthagen *et al.* (2001:71) and Husu, Toom and Patrikainen (2008) link reflection to professional learning and Mason (2004) defines reflection as "intentionally learning from experience" (p.29). Recognising that reflection is concerned with looking back, he asserts that the purpose of that learning should be "for informing future practice" (*ibid.*). This is a view shared by Davis (2006), who distinguishes between productive and unproductive reflection, linking productive reflection to effective teaching; and Loughran (2007), who argues that "effective reflective practice emphasises the importance of reflection for action so that, in the process, deeper understandings of practice might be developed" (p.131). Bolton (2010:10-11) uses the definition of reflection as looking back to argue that the word can be limiting. She proposes that reflective practice captures the essence of purposeful reflection, questioning and challenging "to take responsibility for […] actions and values".

2.2.2 Reflective practice - the place of reflection, reflexivity and critical reflection in a programme of teacher education

Despite some concerns about the value of reflective practice for teaching as a profession (Fendler, 2003), reflection on teaching experience is now well established in programmes of teacher education (Attard, 2007; Lane *et al.*, 2014) as a mechanism by which student teachers can be supported to make sense of their experiences and to make connections between them (Davis, 2006); in other words, to construct professional knowledge, knowledge which is functioning, situated and complex. Reflective practice, Lane *et al.* (2014) assert, "is considered necessary if teachers are to learn from their own teaching experiences and the experiences of others" (p. 482). Malthouse, Roffey-Barentson and Watts (2014) propose that "the purpose behind the act of reflection is to reduce the complexity, and hence the unpredictability, of the issues involved; to find a route out of the complexity" (p.600), whilst Alger (2006) asserts that through reflection on new experiences and other perspectives "lenses will change and improve teachers' understanding of teaching and learning and, ultimately, improve their practice" (p.288). Attard (2007) argues more strongly that reflection is fundamental to consciously learning from professional experience and to learning about our own perceptions and assumptions, asserting that **"**if experiences are not reflected upon [experiential] learning would be mostly tacit, and it is difficult for the practitioner to be fully in control of tacit knowledge" (p.159). The common understanding is that reflection is concerned with coming to know oneself; the context in which one is working; and the interactions between the two.

Reflective practice, the "engagement in ongoing and focused reflection in which questions are constantly framed and re-framed" (Lane *et al.*, 2014:482), is "considered necessary if teachers are to learn from their own teaching experiences" (*ibid.*). Swanwick *et al.* (2014:161) concur; "Reflective practice concerns the self and an understanding of the world. It consists of inquiry into the processes of one's own learning and consideration of one's engagement with teaching and learning" and this view of coming to know 'the self' is in agreement with Geerinck, Masschelein and Simons (2010), who argue that reflective practice integrates Schön's reflection and Foucault's (2005) forms of reflexivity. They develop the concept of reflexivity from Foucault's works and propose that the purpose of coming to know the self is not to look inward, but to understand the contribution of the self to the practice. Ryan (2014) develops this further, proposing that reflexivity is concerned with deliberation and decision making "taking internal and external considerations into account" (p.62). There is agreement here with Dewey's (1933) 'reasoning', one of the five phases of reflection (pp.107-118), in which links are formed between the facts and ideas of the present

'problem' and the hypotheses about possible 'solutions' by drawing on prior related experience (p. 111) and Mezirow's (1998) Critical Reflection of Assumptions (CRA).

CRA proposes a clear distinction between reflection and critical reflection, asserting that reflection can be non-deliberate and that the distinction lies within the intention of the reflective activity, framing critical reflection as purposeful and evaluative. Although there is contrast here with Dewey's concept of reflection, it is possible that this has evolved as normalisation and overuse of the notion of reflection has led to a reconstruction of meaning. Hence Dewey's thinking is reframed as Mezirow's reflection and Dewey's reflection constructed as Mezirow's critical reflection. Mezirow describes critical reflection as "principled thinking [...] impartial, consistent and non-arbitrary" (1998). He draws on the King and Kitchener (1994, p.208) typology of learning assumptions, adopting the characterisation of "reflective judgement" as an adult level of understanding, "actively-constructed" and "related to context", defining "context" as encompassing the breadth of historical experience and 'evidence' on which the active belief system is based. Mezirow's much debated Transformation Theory offers a view of learning as engagement with new knowledge and experiences such that change is effected in the learner's system of beliefs, values, principles or other currently held knowledge. He argues that CRA is a key element of that process.

What Mezirow (*op. cit*.) and Swanwick *et al.* (*op. cit*.) offer is a perspective on the place of reflective practice in the professional development of beginning teachers and, in fact, in the continuing development of teachers at all stages of their professional lives. Swanwick *et al.* also provide systematic analysis and insight into the connection which reflection offers between the types of knowledge to be developed within a programme of teacher education. By systematically mapping characteristics of reflective practice to characteristics of critical thinking, (a connection which has also been made by Yesilbursa, 2011a) they conclude that there are "crossovers" between the two (p.157) and identify key principles which characterise those crossovers.

2.2.3 Initiators of reflection

Dewey (1910) proposed that whilst thinking is not, in itself, to be taught, there is a need to learn "how to acquire the general habit of reflecting" (p. 35). Mason's (2004) "discipline of noticing", which he also asserts is a habit to be developed rather than a naturally occurring power, offers a strategy for working with reflection in, or on, action in a deliberate and organised way in order to prioritise and attend to aspects of professional practice to be developed. "Reflecting on what has happened in the past and selecting possible actions for the future […] do not in themselves guarantee that you will think of them in the heat of the

moment" (p.75). His work develops a set of strategies for being "awake to opportunities" (p.94) through marking what has been noticed in the course of practice and determining to be alert to related experiences in the future. There are, in this model of practice, two initiators of reflective thinking: those which are 'noticed' in the course of practice; and those which have previously been marked for attention. Both, it may be argued, can be classified as 'problems' insofar as they are priorities for action from the perspective of the practitioner.

The nature of such problems is explored by Loughran (1995), who analyses the nature of foci for reflection in the reflective writing of student teachers and identifies four categories of issues: those initiated "as a result of considering specific topics on the course"; "concerns about self"; "concerns about classroom teaching"; "concerns about learning" (p.85). In this study he compares the ways in which ideas from teacher education courses and issues arising in the *practicum* influence the reflection of beginning teachers. More recently, Davis (2006:284) studied the foci for student teachers' reflections using similar categories but including a focus on learners as well as learning and on personal subject knowledge as well as self. Dewey (*op. cit.*) refers to these triggers of reflective thinking as "germs" (p.35) (or seeds) and suggests that effective teachers hold a store of "germs" which have the capacity to initiate reflection in learners. In the context of teacher education then, it can be inferred that the teacher educator's stock of seeds is the set of key areas on which one might focus in developing as a teacher, such as behaviouristic strategies or pedagogic approaches or they may equally be around professional competence requirements. He asserts that the "stretch of links brought to light" (p.91) is dependent upon the extent of prior experience and education of the actor in this situation, but also on the wider influences of current thinking. One might assert, then, that one can support the sense making process by growing the resource bank from which the actor is drawing. Hence a key role of the tutor and/or mentor is to offer resources to add to that bank, in the form of shared experiences of their own or of others (i.e. research findings).

Noting the strong influence of affect in the early experiences of beginning teachers as they negotiate challenges to perceptions, assumptions, values and beliefs, Janssen, deHullu and Trigelaar (2008) studied the relationship between the 'problems' which initiated reflection and the responses which followed. They found that reflection on 'problematic experiences' was less of a motivator for change than reflection on 'successful, positive experiences'.

> "When student teachers reflect on positive experiences they discover things that they both can do and which they value, hence their positive and high-ranking resolutions which they are confident they can achieve because they have done it (partly) before. On the other hand, when they are reflecting on problematic

> situations they are reflecting upon situations they don't want to happen again and they can't do well".
>
> (pp.123-124)

This appears to present a dilemma for tutors who wish to promote reflection on practice. By directing the attention of student teachers away from problematic experiences and onto positive experiences, it is possible that areas where change is needed (in order to address a developmental priority) may be disregarded. However, the mediator of these two extremes is the dialogue between student and tutor. Muir and Beswick (2007) capture this idea as follows: "noticing aspects of one's own practice that may be triggered by a question from an outside observer and then recognising and working on issues of concern" (p.77). Hence the tutor (or other supporting teacher) has a role in supporting the beginning teacher to 'notice' and 'mark' (Mason, 2004) those aspects of practice which should take priority.

2.3 Reflective writing as a process and a skill

Reflection in and through writing has been advocated by a number of authorities on reflection for learning in teacher development (e.g. Loughran and Corrigan, 1995; Mason, 2004; Moon, 2006; Bolton, 2010). Popular forms of reflective writing include journals (Hatton and Smith, 1995; Bain *et al*., 2002), portfolios (Zeichner and Wray, 2001; Darling, 2001) and blogs. "The possibilities are as broad as the imagination of the writer – or of the person who has set journal writing as a task" (Moon, 2006:45) and what each of these has in common is the use of the act of writing as an organiser of reflective activity and a medium for communicating one's reflections with another (Loughran and Corrigan, 1995) or "to make connections between content and practical experiences and thereby enhance their reflective capabilities" (Yost, Sentner and Forlenza-Bailey, 2000:44). Moon (*op. cit.* p.26) notes the capacity of the process of reflective writing to provide a space in time for reflection which might otherwise be difficult to integrate into the busyness of professional life and Mason (2004) asserts that the very act of preparing to write is one which establishes that space. It is "the beginning of an inner separation from being totally caught up in the flow" (p.19).

There is, however, relatively little research into the place of reflective writing in the development of professional competence and much that has been written about reflective writing appears to imply a synonymity with reflection, in that reflective writing appears to be used interchangeably with reflection. (e.g. Lane *et al.*, 2014; Rodgers, 2002). Alger (2006) notes that "many of these [reflective writing] activities have the potential to encourage reflection, but there is little research evidence to show that as a result of engaging in these

reflective activities that teachers develop a reflective disposition or stance" (p.289). Dewey (1933) asserts that processes of sifting evidence and selecting applicable rules are characteristics of judgement making, a constituent element of reflective activity (pp. 119-126). Hence it might be argued that the process of selecting themes for writing and constructing written arguments may contribute to the construction of knowledge and there is consensus that 'journal' writing or portfolio building has value in supporting the development of student teachers' reflection (Darling, 2001; Bain *et al.*, 2002; Mason, 2004; and Moon, 2006; for example). Senese (2007), building on Loughran's (2007) view of the place of articulation, sees reflective writing as a strategy for working towards resolution to a problem. She argues that "framing and reframing a problem through reflection and articulation distils the problem, clarifies it and makes it accessible to being resolved" (p.50). Bolton (2010: 84-99) addresses this notion directly, presenting "writing as reflection" (p.84).

There is also consensus that reflective journals contribute to the interactions between the student, the tutors and the experience in practice, which Iredale *et al.* (2013) describe as "the shared spaces and discourses between initial teacher education and trainee teachers' professional practice" (p.198). There is no assumption that learning is inevitable. Loughran (2007) argues that "rationalisation may masquerade as reflection" (p.131) and Mason (2004) notes that "written autobiographical and other notes, keeping a journal and mentally re-entering salient moments can assist professional development and be integral to research; they can also be carried out mechanically and ineffectively" (p.17).

Tan (2013) integrates reflective writing with reflective dialogue, positioning the reflective writing as the initiator of collegial discussion supervised by a university tutor. She offers evidence of positive impact on student teachers' perceptions of self-efficacy but seeks no confirmation of this in terms of contribution to their practice as teachers. Although she supports the notion of reflection as an "important feature [....] for creating awareness, evaluating and decision making for classroom instructional and managerial decisions with trainee teachers, especially during the *practicum*." (p.814), the findings of the study draw more from affective responses to 'problems' arising in teaching experience, documenting the need to increase time available for dialogue in order to meet students' support needs (p.819). Similarly there is discussion about the use of prompts which direct the focus for reflection but also discussion about the shift to personal priorities during the reflective dialogue phase. There is some support here, then, for the integration of tasks which 'force' reflective activity and direct the focus, but equally for sufficient flexibility to respond to students' developmental priorities. This is supported by Mason's (2004) and Moon's (2006)

recognition of the interaction between the disturbances which arise in the course of teaching and those which arise as a consequence of observing or hearing others.

2.4 The practice of assessment and its connectivity with learning

This discussion will consider the meaning and purposes of and explore the paradigmatic tensions which arise in framing assessment as it is manifested in the educational context. It will offer an overview of constructive alignment of assessment, an approach in which assessment is positioned as an integrated element of learning activity. The discussion will lead to an argument for constructive alignment of assessment within the particular context of ITE and identify specific opportunities to develop that alignment.

2.4.1 Epistemology and assessment

In Section 2.1 I discussed the literature relating to knowledge and learning and established an epistemological lens for the study. In order to frame assessment in the context of education, assumptions about knowledge and understanding and the meaning of 'truth' or 'reality' will be revisited. This discussion considers the influence of realism and positivism in the development of assessment in education and offers an alternative view through a constructivist lens.

In a purely positivist paradigm, truth is fixed, discrete, defined and can be proved. Tests of truth are characterised by procedural constraints which assure their objectivity and repeatability. The outcomes of the tests are repeatable at every implementation. It is, therefore, possible to identify causal relationships and to use them to predict outcomes of related tests with certainty (or at least to attribute quantifiable degrees of certainty). As a consequence it is unacceptable to claim anything as 'truth' or 'reality' which has not been proved through testing (Gage, 1989). A positivist view of learning might assume that knowledge is a quantifiable entity and therefore measurable with objectivity. It could be argued that such a perspective places a constraint on the type of knowledge to be learned, restricting learning to that associated with declarative or procedural knowledge (Gibbs, 2007, pp. 41-43) and consequently promotes surface approaches to learning (*ibid*. pp.14-16).

Constructivism offers an alternative view of truth as idiographic or negotiable, shaped by individual or collective perspectives and therefore subject to change in response to new experiences. 'Testing' is replaced by evaluation which results in construction of a truth or reality which is applicable to the characteristics of the particular actors and the specific context in which the test is administered. Claims of cause-effect relationships are feasible

within the constraints of the particular case but are neither generalisable nor fixed, and must acknowledge the subjectivity due to perspectives brought by the claimant/s.
From a constructivist perspective measuring knowledge is problematic because all influential factors must be taken into account, whereas the positivist would consider it possible to isolate the variable to be measured, controlling other factors and considering them to be invariant. The verb 'to measure' might usefully be replaced by 'to judge' and the object 'knowledge' be replaced by 'achievement of the intended standards'. The process, therefore, becomes subjective, requiring "high levels of judgement [...] as to how well the students' performances match the objectives" (*ibid.* p.166) and contextualised (See Eraut, 1994; Lave and Wenger, 1991).

2.4.2 Summative assessment – a summary measurement or evaluation of learning

The meaning of the word assessment can be restricted to the process of measuring outcomes e.g. quantity or breadth of knowledge; quality of performance; etc. Where the entity to be assessed is subject to change, the implication is that a particular assessment is identifiable by date and/or time and can therefore be considered to be fixed at that point in time. This conceptualisation of assessment has been labelled as 'summative' (see Knight and Yorke, 2003, for example) as it offers a summary of outcomes for a measurable entity. In many education contexts, summative assessment is used to attribute a grade or level to every individual and subsequently used to inform judgements about their progress and potential by use of analytical and/or anecdotal norm-referencing (e.g. to set entry requirements for employment or for a course of education) and to make judgements about efficacy of teaching or management (Bloxham and Boyd, 2011:31-32). Any decision which is made on the basis of summative assessment outcomes assumes reliability of those outcomes i.e. it is assumed that every outcome can be used as a representation of the capability of the individual to whom it has been attributed (Leach, Neutze and Zepke, 2001; Knight and Yorke, 2003:3-4).

Summative assessment appears to view learning through a positivist lens. It appears to assume that knowledge can be quantified, measured or judged through empirical means and that every learner has equal capacity to demonstrate knowledge under the same assessment conditions. Furthermore it assumes that measures or judgements can be assigned objectively, that judgements are repeatable by all assessors, that criterion referencing is always feasible and that the criteria by which values are assigned to quantity or quality of learning are clearly definable. Underlying these assumptions is a belief that all assessors discern the one true meaning (not interpretation) of those criteria and that all

assessors match performance characteristics to assessment criteria in the same way. (Leach, Neutze and Zepke, 2001:296)

However, there is increasing agreement that framing assessment processes in this way is problematic, with a growing body of evidence that the existence of subjectivity, construction of meaning or interpretation must be acknowledged and managed (Wyatt-Smith and Klenowski, 2013; Sadler, 2007; Hay and Macdonald, 2008) within the application of assessment criteria and within conceptions of what is to be measured, from reproduction to application of knowledge (e.g. Postareff *et al*., 2012; Biggs, 2007 pp.177-180). Moderation, when viewed through the positivist lens, may be viewed as a mechanism by which the accuracy of measurement is verified (indeed the process is referred to as 'verification' in some contexts). However, moderation activity frequently reveals differences in interpretation of criteria when applied to specific cases and is commonly employed by assessors to accumulate experience and collaboratively construct knowledge of the manifestation of assessment criteria in candidates' responses to the assessment task. Wyatt-Smith and Klenkowski (2013) propose the influence of meta- and latent criteria constructed by the assessors as a consequence of their experience, in addition to the explicit criteria set out for the candidates. Tummons (2010) challenges the reliability of the judgements. The suitability of assessment criteria to assess the intended learning outcomes has also been the subject of some criticism (e.g. Asikainen *et al.*, 2013). Within this discussion then, the process of summative assessment in education will be viewed through an interpretivist lens and considered to be evaluative i.e. a process of attributing a value to learning achieved so far based on accumulated knowledge and experience of both the topic for assessment and the context in which it is located. This is an aspirational view which does not appear to be representative of perspectives within the teacher education context.

A further level of complexity is introduced when the learning to be summatively assessed relates to performance or the application of knowledge to a case or class of cases, (Baartman *et al*., 2013; Clarke and Moore, 2013; Kamphorst *et al*., 2013) as it is in teacher education but also in medical, social care, etc. education. Courses of higher education in which these disciplines are developed and in which learning is summatively assessed define the intended learning in ways which take account of the necessity for the learner to be responsive and adaptable to context and case. For example, in England, Wales and Northern Ireland, the *Framework for Higher Education Qualifications* characteristics of a Master's level professional graduate include: "the ability to apply research to professional situations, both practical and theoretical [...]; use initiative and take responsibility; solve problems in creative and innovative ways; make decisions in challenging situations" (QAA,

2010:15). The criteria by which such performance is evaluated, graded or assigned a level are inherently subject to interpretation, relying on measures such as accumulation of experience and collegial moderation to assure comparability of judgements across the range of cases and contexts encountered.

There is a place, then, for a critical review of assumptions about the need for summative assessment. Is summative assessment always necessary? For whom is it necessary? What purpose does it serve? How reliable is it? In particular, in developing this discussion, is summative assessment necessary in a course of Teacher Education? Leach, Neutze and Zepke (2001) locate the response to these questions with stakeholders.

> "Learners expect to gain useful qualifications recognised by, for example, employers, and we are obligated to meet this expectation. Society-at-large expects graduates to meet assumed standards of knowledge, skills and attitudes. We therefore develop assessment practices that assure both learners and society-at-large that graduates from our programmes meet those standards" (p.298).

Dewey (*op. cit*.), however, suggests that there is risk associated with attempting to measure achievement against a set of criteria, stating that "the worst thing about empiricism [...] is that it leads to a blind observance of rule and routine […] Even that which he has once learned and applied with some interest and intelligence tends to become more and more mechanical, and its application more and more an unintelligent and unemotional procedure" (p.201).

The analysis of outcomes of summative assessment underpins national and international perceptions and policy in education at all levels. In considering the influences and implications of this fact in the specific case of ITE it is necessary to explore summative assessment of academic and professional achievement as separate processes with separate influences.

In England, 17,609 places were allocated for routes into teaching which offer Qualified Teacher Status (QTS) as a standalone qualification, typically through a school-based route, whilst 15,490 were allocated for routes which combine QTS with an undergraduate degree or Postgraduate or Professional Graduate Certificate in Education (PGCE) (DfE, 2014b). The classification awarded for an undergraduate degree and the grades awarded in the PGCE may be influential factors in the employability of an individual, whether in teaching or in other fields, but anecdotal evidence from local employers indicates that professional competence demonstrated at interview coupled with successful completion of a course of

ITE (and the associated award of QTS) overrides consideration of the grading of academic outcomes when selecting and recruiting new teachers.

Whichever route of ITE is selected, summative assessment of professional competence in ITE is framed by a set of professional standards, currently the *Teachers' Standards* (DfE, 2012). The Department for Education (DfE), through the independent inspection and regulatory body, the Office for Standards in Education, Children's Services and Skills (Ofsted), requires all teacher education providers to grade each ITE graduate between one and four where one denotes 'outstanding' and four denotes 'does not meet the minimum requirements'. As with other educational outcomes, the grading of teachers has influenced educational policy (DfE, 2010 for example). However, there is no systematic central collection of individual grades by DfE or Ofsted. The data from which conclusions are drawn and policy decisions made are the collation of summary statistics (proportions of cohorts achieving each grade) from the institutions sampled through inspection methodologies. (Note that the frequency of inspection is greater for institutions judged to be least effective, hence the sampling may be considered to be non-representative of the population.) Furthermore, since the revision of the Ofsted ITE Inspection Handbook in 2012 (Ofsted, 2012), neither the criteria which define these grades of teacher performance nor the labels associated with each grade have been published or explicitly stated. In an attempt to address concerns about transparency, consistency and comparability across the sector, the Universities Council for the Education of Teachers (UCET) with the National Association of School-Based Teacher Trainers (NASBTT) and observers from HEA, DfE and Ofsted, developed a set of descriptors which integrated the incoming *Teachers' Standards* (DfE, 2012) with the outgoing Ofsted criteria for the grading of teaching (Ofsted, 2009) and the combined experience of the participating writers and consulting institutions. The manner in which the UCET/NASBTT/HEA (UCET, 2012) descriptors have been applied to the grading of graduate teachers by providers nationally is not currently documented.

With little evidence of the influence of summative grades, both academic and professional, on individual employment or other progression, one might propose that summative grading is of little relevance for individual students on a course of ITE. In fact there are strongly worded arguments against the use of summative use of professional 'standards' (see Clarke and Moore, 2013, for example). However, such a proposal should be weighed in light of two further factors: the influence of individual outcomes on the reputation of the awarding institution and the opportunity for formative use of the outcomes for individual development (academic and/or professional).

2.4.2.1 The influence of individual outcomes on the reputation of the awarding institution

The emphasis on public availability of information has recently been formalised for Higher Education Institutions in the Higher Education Funding Council for England (HEFCE) review. The specification of publically available information within the Wider Information Set (HEFCE, 2012) establishes a set of criteria by which HE institutions may be compared by stakeholders, from potential students to funding decision makers. The proportion of graduates achieving first class and upper second class degree classifications, for example, is one element of the Key Information Set which all providers must make publically available. Hence it can be argued that the summative grading of individual achievement has value for the individual in safeguarding the reputation of the institution with which s/he is associated. Similarly, although the spread of teacher performance grades is not collated to the same extent as degree classifications, trends in and levels of proportions of grades are constraining elements in the event of an inspection by Ofsted (Ofsted, 2012, p. 29).

2.4.2.2 The opportunity for formative use of the outcomes for learner and teaching development (academic and/or professional)

Where the outcome of a summative assessment process is a summary report of achievement against a set of criteria, there is potential for the individual to benefit from that report by identifying personal strengths and priorities for improvement. If managed in this way, the summative assessment process has formative value. Given the tendency of the preceding arguments towards the provision of summative grades for institutional purposes rather than for the benefit of the individual learner, this formative use of summative assessment must assume a leading influence in the design of assessment for the benefit of individual learners. This is discussed further in the next section.

2.4.3 Assessment as an initiator of learning activity

In section 2.2, assessment was constructed as a process. However the significant influence of the indicators of learning (grades and levels) derived from that process on individual behaviours and attitudes, suggests that assessment should be positioned as more than an isolated event. In this section assessment is constructed as one strand of a course of learning which intertwines with other strands to contribute to the learning activity. This construct of assessment encompasses a number of static and dynamic elements. Static elements of assessment include the task through which performance or achievement will be judged and the set of criteria against which achievement will be judged. Supporting these are dynamic elements such as the interactions between teacher and learner which take place as part of the engagement with the assessment task, the learner activity which takes place in response to the task and criteria, the process of measuring or evaluating the

outcomes of that activity and the learner activity which takes place in response to the summary of measurement or evaluation.

This construct of assessment has its basis in the principle of constructive alignment proposed by Biggs (1996, 2007), discussed by Gibbs and Simpson (2004) and applied in context by, for example, Asikainen *et al*. (2013); Boud and Falchikov (2006); Postareff *et al*. (2012); McNamara (2013); Walsh (2007). Constructive alignment was conceptualised by Biggs (1996), building on his critique of an integration of constructivism and instructional design attributed to Duffy and Jonassen (1992). He argued that there was a dichotomy between espoused theories and common tertiary practice which was attributable to habits of objectivism. The espoused theories asserted that it was possible, within course and/or unit design, to set out learning outcomes (LOs) and clearly specified criteria which could be used to determine the extent to which those LOs had been achieved. However, from the constructivist perspective, he argued that the assessment policies and practice "distort the quality of teaching and learning, and do violence to assumptions about the nature of knowledge" (p.348). His major criticisms were that the common modes of assessment in use were based in assumptions of what he termed "declarative or propositional knowledge" and that the knowledge to be assessed was determined by the teacher, thereby failing to give credit for knowledge which was situated or not anticipated. Biggs (op. cit.) presented examples from his work with student teachers which demonstrated ways in which to modify the design of assessment tasks and the associated intended learning outcomes and criteria to be satisfied, to more effectively respond to the constructivist view that "learners arrive at meaning by actively selecting, and cumulatively constructing, their own knowledge, through both individual and social activity" (p.348). His argument, then, was that all elements of the course design should take account of the constructivist view of how learning takes place. He later summarised constructive alignment by reference to the intended learning objectives, the teaching methods and the assessment tasks.

> "The curriculum is stated in the form of clear objectives, which state the level of understanding required rather than simply a list of topics to be covered. The teaching methods are chosen that are likely to realize those objectives; you get the students to do the things that the objectives nominate. Finally the assessment tasks address the objectives, so that you can test to see if the students have learned what the objectives state they should be learning."
>
> (Biggs, 2007:27)

Biggs' principles have been supported in texts for higher education tutors and course developers such as Knight (1998), Fry, Ketteridge and Marshall (1999), Hartley, Woods and Pill (2005), Bryan and Clegg (2006). The principles have been adopted as the basis of course design in, for example, the Open University Post Graduate Certificate in Academic

Practice and by my home institution; with emphasis placed on the clear articulation of learning outcomes and the systematic mapping of assessment criteria to those intended learning outcomes. The emphasis on these two aspects of the approach is understandable because oversight of LOs and assessment criteria is manageable at an institutional and course level through the course approval or validation process. However, this emphasis appears to miss the focus on "aligning teaching" (Biggs, 2007:11) to the intended learning outcomes. Hussey and Smith (2003) have argued that the detailed specification of learning outcomes can lead to what they describe as "tensions between best practice and bureaucracy" (p.358) as teachers in HE attempt to balance reflexive teaching with accountability. Like Biggs, they see knowledge as socially constructed and situated. They argue that the teacher needs to adapt her/his teaching in response to the evolving discourse and hence learning outcomes are not always those which were planned by the teacher. They make a distinction between "intended" and "emergent" learning outcomes (p.362), arguing that learning outcomes are "dependent [...] on what happens between the principal players – students, tutors, subject matter and setting" (p.359). The subsequent assertion is that attempts to define LOs with precision can lead to "a spurious sense of precision and clarity [such that LOs] are in danger of being interpreted by students and tutors as thresholds – hurdles to be cleared" (p.358). That is, they can interfere with effective learning by constraining teacher and student behaviour. This perspective is supported by the findings of Boud and Falchikov (2006, 2007), who consider the implications of constructive alignment for long-term learning, and of Walsh (2007) who considers the implications for work-based learning.

The following postulates, drawn from Biggs (2007) and Gibbs and Simpson (2004) have been accepted: Learning happens as a result of activity by the learner (as opposed to activity by the teacher); Attitudes to learning may be classified as 'deep' or 'surface' where 'deep' approaches seek conditional and functional knowledge and 'surface' approaches serve immediate procedural or declarative intentions; The desire to 'pass' and/or achieve a 'high grade' is the most commonly cited motivator of learning activity; Assessment criteria set out for the student what learning s/he must demonstrate in order to achieve the desired pass or grade; Assessment tasks set out for the student the context, application or medium through which s/he must demonstrate learning in order to achieve the desired pass or grade.

Constructive alignment theory asserts that, if the postulates above are accepted and if application and abstraction of knowledge are aims of course design, then assessment and learning are inextricably entangled. The design of assessment tasks and criteria must be considered to be a key element of the course and must be integrated and exploited to initiate

and sustain meaningful learning activity. Boud and Falchikov (2006:400) refer to this as "learning-oriented" and develop the notion further, arguing the place of assessment in preparing learners for employability and ongoing professional development by supporting them to become effective "assessors of learning" (*ibid.* p.402) both of self and of others' learning. Speaking specifically about writing, Moon (2002) describes it as a "form of representation of learning and a demonstration of what we have learnt". It is not the product of writing, she argues, but the process, which "leads to learning, or more learning" (p.29). There is an argument, then, for reflective writing as an assessment task and this is supported by Swanwick *et al.* (2014), who claimed, in common with Davis (2006), that there is crossover between reflection and critical thinking. Their analysis begins to justify the use of reflective writing as evidence of achievement at the level required for a postgraduate award.

2.5 Summary of findings from the review of literature

In ITE there is a complex relationship between the professional standards which define the status of 'qualified teacher' and academic 'standards' which define a postgraduate award. As a consequence there are apparent differences in the learning outcomes demanded by the profession and those demanded by academia. The differing priorities articulated through these learning outcomes combine with the contextualised experiences and learning within initial teacher professional development to establish a broad set of demands on the attention and energy of beginning teachers. Reflective practice has been conceptualised as a process of sense-making which enables the actor (the reflector) to sift and select from the range of experiences and encounters, to determine priorities and attend to them. Hence it is argued that a central learning outcome for programmes of ITE is reflective practice.

In his articulation of the principles of constructive alignment, Gibbs (2006) asserts that students' learning attitudes and behaviours are strongly influenced by their perceptions of the requirements to 'pass' the module and/or programme.

> "Students are strategic as never before, and they allocate their time and focus their attention on what they believe will be assessed and what they believe will gain good grades. Assessment frames learning, creates learning activity and orients all aspects of learning behaviour. In many courses it has more impact on learning than does teaching."
>
> (p.23)

His subsequent proposal that course developers should design assessment tasks with that assertion in mind has gained widespread support in the literature (e.g. Norton, 2004; Bryan

and Clegg, 2006; Walsh, 2007) and has underpinned national and institutional learning and teaching strategies (QAA, 2014, Chapter B6, p.4). In ITE, therefore, the assessment tasks should necessitate reflective practice.

Views about assessing reflective writing vary within the literature and one source of complexity within the dialogue is the common absence of a clear articulation of the distinction between assessing reflection and assessing written reflection (and, in fact, assessing writing for its academic qualities). However, there is a theme which emerges in Dewey's (1910) work and continues through to the most recent literature, of analysis of the language which has been used in response to a prompt for reflection, either in spoken or written form.

Several different typologies have been developed which might be used to identify 'levels'; 'stages' or qualities of reflection within the language to be analysed and there is a growing body of literature in which these are compared and contrasted (e.g. Lee, 2005). The rhetoric is one of aspiration to achieve high levels of reflection and the rationale is located within the potential of such reflection to effect change in professional practice. However, two observations must be made here. Firstly that it is precisely that change (and the ability of the reflective narrator to articulate that change) which is used as an indicator of the high level of reflection. Secondly, there is an assumption that change is both necessary and good as an outcome of reflection, with little discussion of what the nature of that change might be. This is one of the themes for discussion which will be revisited in Chapter 5.

The perception of a requirement for analysis of levels or stages of reflection within language suggests that there is a rationale for doing so. A key feature of a persuasive rationale must be one which prioritises student learning, and that is to be found in the work of Moon (2002:105-106), who proposed that her "reflective map" could be used as the basis for a set of "assessment indicators", providing a guide for tutors and students, and Ward and McCotter (2004), who agree that the taxonomy can be used to support learners in identifying a current position and a target position and to provide guidance as to how to progress further. In their critique of taxonomies of reflection and their work to develop an alternative, Ward and McCotter (*op. cit.*) argue that the taxonomy "explicitly links reflection to student learning" by giving "shape to the general principles of reflection and help[ing] teachers visualise how reflection can improve their practice" (p.246). The Ward and McCotter rubric was selected as a tool for analysis of reflective writing in this study because of their aspiration to "address the challenge of outcomes based education"; "deal seriously with

student learning"; and "recognise the qualities of reflection that are related to improvement of practice" (*ibid.*).

The findings from this review of the literature have determined the research questions for the main study. These are:

- What are the factors which influence student teacher engagement with the reflective writing tasks which are compulsory elements of their teacher education programme?
- To what extent does a student teacher's reflective writing portray her/his reflective practice?
- Is there a connection between a student teacher's reflective writing and her/his professional achievement?

3. METHODOLOGY

3.1 Introduction

This chapter recounts the development of a methodology which supports evaluation of the influence of assessment on the learning and professional development of student teachers. The chapter begins with a consideration of ontological and epistemological positions with the intention of framing the personal beliefs and assumptions which have influenced the study and of identifying the opportunities and constraints (Markauskaite, Freebody and Irwin, 2011:6) arising from those. Within that discussion it is concluded that consensus about ontological and epistemological frames is elusive and the pragmatic decision is taken to prioritise clarity of purpose in the search for a framing (see Appendix 2). This decision is justified by reference to a number of edited research anthologies in which authors and editors actively aggregate ontology and epistemology in order to directly tackle what is important about these philosophical positions in the design and presentation of research. Consequently it is concluded that this work lies within a paradigm which displays both constructivist and interpretivist characteristics.

One of the key indicators of the paradigmatic position of this study is the purpose and aim of the work. This study has come into being as a result of an aspiration to critically evaluate an aspect of pedagogic practice and to propose improvements to that practice. The chapter includes a discussion of action research and case study as approaches to research in social and educational contexts, and proposes that the aspirations of the study can be achieved by the adoption of an action research approach. Key characteristics of this approach are cycles of the study in which practice evolves and adapts in response to findings and the place of the researcher as an actor and, therefore, participant in the study (Norton 2009, Koshy 2010). A consequence of these two characteristics and their interaction is the evolution, not only of the practice researched, but of the focus of the study itself. Hence the chapter will show how the research questions have been developed through the cycles, and will consider the implications for the trustworthiness and rigour of the study arising from the role of participant-researcher, showing how potential issues have been addressed.

The chapter will show how appropriate sources of data have been identified and the methods for collection and analysis have been designed. Qualitative data and analysis methods are predominant, with emphasis placed on strategies for locating the occurrence of

reflective practice in students' written work and on student perceptions of the place of reflection in that work. However, a further paradigmatic dilemma arises from the focus on the contribution of practice to learning, because the focus itself demands the evaluation of learning in some way, and there is much debate to be engaged in around approaches to evaluating or measuring learning. This debate must be confronted in order to determine appropriate data selection, collection and analysis methods. The chapter attempts to justify the use of quantitative measures of achievement as indicators of learning, whilst maintaining scepticism about the place of the grades awarded in providing relevant information about the specific learning which forms the basis of this study. Hence, because the study does include some use of quantitative data and associated quantitative manipulation (I hesitate to define it as quantitative analysis), the chapter will conclude that the work should be classified as qualitative dominant mixed method. (Onwuegbuzie, Leach and Collins, 2001)

A further consideration is the potential influences due to power relationships and similar influences arising from the dual roles of researcher-as-participant and researcher-as-tutor (Dillon 2014, Ben-Ari and Enosh 2013). These issues are addressed within the ethics section of this chapter.

In summary, then, the chapter will:

- Provide a narrative of my evolving understanding of my role as participant researcher in the study
- Justify the application of action research and case study approaches and discuss the applicability of the findings to other similar cases
- Set out the purpose, scope and limitations of quantitative methods in relation to this study and, thereby, locate the methods for data collection and analysis by reference to mixed methods
- Present a rationale for the consideration of student perceptions in constructing an understanding of the influence of assessment practices on learning
- Set out the approaches to be used for data analysis and presentation, introducing the subsequent work on analytical frameworks
- Explore the notion of validity and reliability in the particular context of this study and set out the strategies employed to assure the trustworthiness and rigour of the study
- Discuss and address ethical considerations of the study
- Conclude by summarising how the methodology aligns to the objectives of the study and contributes to a response to the research questions.

3.2 Ontological and epistemological perspectives

3.2.1 Statement of self

Arthur, Davison and Pring (2012) offer a continuum model of ontological positions, from the purely realist extreme, where “a singular objective reality exists independently of individuals’ perceptions of it” to what they term constructivism at the opposite extreme, where “multiple realities are constructed by individuals”. The continuum model is helpful for a researcher who is attempting to locate and articulate the paradigm within which s/he is working, as it allows for the possibility of a transient or evolving position. However, the labelling of the extremes in this model has, in itself, revealed an example of the difficulties which researchers encounter in reaching agreement about meanings, with many sources (e.g. Lapan, Quartaroli and Riemer 2012, May 2002) situating constructivism as an epistemological, rather than ontological position. In fact, Spencer (2000) shows that the distinction between ontology, the study (from the Greek ‘logos’) of being (from the Greek ‘ontos’), and epistemology, the study of knowledge (from the Greek ‘episteme’), is frequently unclear. He goes so far as to assert that postmodernists “deny that there is such a thing as truth (clinging to the realm of epistemology and denying that ontology is even a legitimate subject)”. In my personal reflections and in my discourse with others I have challenged and debated the question “why does it matter?” and have concluded that the answer, for this work, lies in two areas:

- in order to communicate my actions, findings and conclusions clearly and effectively I need to ensure that my meanings and intentions are visible and that the influence of my perspective is surfaced (Dillon 2014, Ben-Ari and Enosh 2013);
- in order to convince my audience that my work has value I must show that the approaches employed have been tested and demonstrated to be trustworthy by colleagues within the research community i.e. that there is consensus that the approaches are suited to the intentions of the study.

Lincoln and Guba’s (1985:37) axiomatic approach is helpful in that it frames paradigms by setting out the axioms which characterise them, eliminating the need to adhere to philosophical constructs. Dillon’s (2014) summarisation also offers encouragement in the representation of Foucault’s work as evolving over time. Together, Lincoln and Guba and Dillon and Foucault offer me the solution to this dilemma, which is to set out my axioms and to adopt the continuum model insofar as it allows for the possibility of changing understandings.

I entered the field of education as a mathematics, computer science and management science specialist, displaying positivist characteristics such as “a belief that the construction

of general laws about social and physical relations are both possible and desirable [,that] factual statements can be separated from value statements [and] observations can be theory-free" (Scott and Morrison 2007). In my experience as a teacher and my study of learning and teaching I have developed a conviction about learning which begins to challenge those beliefs. As a consequence, remaining alert to the emergence of behaviours and preferences which have become habit has been a necessary aspect of this study. Walsh (1999) describes "a bad day in the post-positivist research world [as one which] may find us oppressed by values. We have learnt to live with them [...] but we may still pine for the detached distances and unencumbered objectivities of the old 'outsider' perspective" (p.37). This description of affect in research is one in which I find much common ground and my Reflective Log often refers to the internal struggle to acknowledge and address assumptions that are embedded and latent. During the course of this research I have espoused beliefs that an individual learns and forms an understanding of the meaning and value of experiences in a manner which is shaped by those experiences. I believe that both nature and nurture contribute to that manner of learning. By nature, I mean that there are predispositions or affinities which are due to the biological components of the individual (the structure of the brain, the physical composition and configuration of the body etc.) I refer to nurture as the manner in which the individual is exposed to learning opportunities, including the physical and mental rearing by influential others. However, as the study has progressed, I have become aware that my espoused position on that continuum may be different from my lived position (See Appendix 3). In particular, in developing and reporting the pilot study for this inquiry, my approach was often formulaic and I sought to remove myself from the study and structure it as a critical evaluation with findings and recommendations to be presented to the community of teacher educators. I had made assumptions of reality which were presented as facts or truths and claims of generalisability which were unsupported. Walsh's metaphor of pining for the objectivity of the positivist research world (*op. cit*.) is, it seems, exemplified here. In a meta-cognitive way, this realisation has served to reinforce my espoused ontological position and, perhaps, to shift me further away from the realist end of the continuum. That is, the more I discover about perspectives and sense-making, the more I tend towards the belief that what is 'understood' about a concept or idea is an individual construct which may or may not have agreement with other individuals' understandings. Crotty (1998) explains this as "intramental" i.e. inside the mind and locates the "idealist" at the opposite extreme of the Arthur, Davison and Pring (2012) continuum. The idealist would claim the absence of reality. I find the notion persuasive, but am drawn to examples of what are commonly understood to be facts e.g. the product of three and four is twelve. I am content to define 'fact' as an agreed convention in order to remain open to the debate about irreality and subscribe to a view that this notion of agreed conventions is of fundamental

importance for human interaction. However, what is also very clear is that even agreed conventions are fluid (exemplified by the ontology/epistemology debate mentioned earlier). Interpretivism, usefully summarised by Alger (2006) as a belief that each of us makes sense of our experiences through a lens which is coloured by our knowledge and beliefs, encapsulates the sense of mobility and the transient nature of understandings.

In my reflections on the construction of knowledge I am reminded of the common frustration expressed by teachers (myself included) at the inability of a pupil or tutee to see that which is apparently 'obvious' and the connected exasperation that it must be taught again and 'they still don't get it'. I have concluded, through reflection on my own teaching and observation of others, and from the theories arising from educational research, that repeated employment of the same approach to teaching will not, in all cases, lead to the ability to recall a 'fact', explain a concept or even express an opinion in the same way that the teacher does. Learning, then, in my view, is an active process in which the actor is caused to make connections between experiences in which s/he has participated. I am attracted by Dewey's (1933:35-47) resources available for learning: curiosity; suggestion; and orderliness and by the notion of "socially mediated intellectual curiosity" (p.38). Mason and Johnston-Wilder's (2004:115-142) collation of writings about learners' powers, although collected with a specific focus on mathematics education, offer a structured argument in which I find little to contest. I support a notion of knowledge as a personally constructed network which connects experiences and encounters and which may be deconstructed and reconstructed in response to new stimuli. Retaining the language of networks and graph theory, I see knowledge as a network of vertices (the experiences and encounters) and arcs (the connections between the vertices). In this analogy, learning takes place through the 'framing' (Schon, 1983) of new episodes by reference to existing networks and results in the addition, relocation and/or removal of vertices and/or arcs to restructure the network. The framing is an individual interpretation of the entities which may or may not align with the interpretations of the same entities by others. The arcs, or connections, are of key importance because the nature and manner of connectedness are what define the individuals' values and perspectives.

This research is therefore presented as viewed through an interpretivist ontological lens. It explores an aspect of pedagogy within ITE building on assumptions which are located within a constructivist epistemology. There is no assertion, however, that the paradigmatic characteristics are polar in nature. The notion of continuity or blended boundaries is one I would subscribe to. What follows, therefore, will set out a constructivist/interpretivist paradigm for the work.

3.2.2 A paradigmatic lens for the study

The search undertaken to clarify my understanding of ontology and epistemology has revealed that many researchers, authors and editors conflate the two (Lapan, Quartaroli and Riemer 2012, Markauskaite, Freebody and Irwin 2011, May 2001, Williams and Vogt 2011) choosing to address them in concert rather than as discrete and separable concepts. On reflection, this choice, in itself, may be indicative of an epistemological stance (See Appendix 4). Whilst acceptance of this absence of clarity might be viewed as unsatisfactory and does not 'sit well' with my typical ways of working, I acknowledge the magnitude of the debate and have judged it to be beyond the scope of this thesis. The priority, for this study, is to be able to locate the work within a set of beliefs and assumptions (a paradigm) in order to demonstrate trustworthiness of the research, the findings and the conclusions, by weighing the work against that of others who are acknowledged as authoritative. Markauskaite, Freebody and Irwin (2011) offer a summary of research paradigms (Appendix 5) which offers a helpful starting point in the attempt to locate a lens for this work. By systematically mapping aspects of the study to aspects of this summary, the constructivist / interpretivist lens is confirmed as follows:

- The research purpose is to understand the influence of assessment on learning and to change practice in response
- There is an assumption of collective agreement and consensus in the methods adopted for the study (This point is contextualised in the discussion which follows.)
- There is an emphasis on change in practice, both for the researcher and the students
- There is an expectation that what is learned can be applied to other student groups i.e. that the results are verifiable beyond the people being studied
- There is commitment to formative applicability of the findings to future practice or action.

As indicated in the second bullet point above, there is a need to explore the notion of consensus further in order to remain alert to the factors which shape and colour the lens through which the work is viewed. I have asserted above that there is a reliance on collective agreement and consensus in the approach to the study. The assertion relates specifically to the quantitative data which have been employed as a set of characteristics by which to classify case individuals or groups. Assigning those data as characteristics of an individual or group appears to imply my acceptance of the measures as valid and reliable; and the strategies in place to promote shared interpretation of assessment criteria are discussed later in this chapter. The dichotomy here is that, in the search for consensus and the acknowledgment of a requirement for such strategies, there is an underlying belief that criteria are interpreted differently by different individuals and that humans “create meanings”

(*op. cit*.) thereby locating the view of humans and of evidence within the interpretive frame, whilst viewing human agency through a constructivist lens. The notion of consensus also assumes equity of voice in the power relationships between the actors. (Dillon 2014, Ben-Ari and Enosh 2013, Scott and Morrison 2007). I subscribe to a view that such is not the case in the relationship between student and tutor, and this has been addressed to some extent through the discussion of ethical considerations later in this chapter.

3.2.3 A pragmatic matching of methods to research questions

In his study of ways in which research evidence can be used to improve the professional practice of teachers, Procter (2014) encounters difficulties as he attempts to synchronise philosophical reference points, research methods and research questions. In particular, the issue of adopting quantitative approaches in a study which articulates a constructivist or interpretivist standpoint is addressed. He proposes a pragmatic approach, arguing that
"a researcher may wish to use the methods that are most appropriate to provide data to answer the research questions, without having to justify whether they are a quantitative or qualitative researcher" (p.107). I found this discussion helpful in its similarity to my own dilemma. The following sections consider the suitability of qualitative and quantitative approaches to the intentions of this study and attempt to justify a mixed methods approach within an interpretivist paradigm.

3.3 Qualitative research methods

Qualitative research methods are those which seek to make sense of the experiences and perceptions of individuals, framed by a belief that the sense making is, in itself, an individual process. "These unique interactions imply that different results could be obtained from the same participant depending on who the researcher is, because results are created by a participant and researcher in a given situation." (Harwell, 2011:148) The sense-making is inductive in nature, with the researcher using the results generated through the study of the participant to form personal theories and construct personal understandings. There is, therefore, a requirement for mobility and responsiveness. Lincoln and Guba (1985:40) assert that "qualitative methods are more sensitive to and adaptable to the many mutually shaping influences and value patterns that may be encountered". Qualitative methods are appropriate to serve the purpose of this study, which is to construct an understanding of the influence which assessment practices have on the learning of student teachers.

3.3.1 Qualitative research and objectivity

Qualitative research methods have developed in response to a need to explore social phenomena. The desire to undertake research into aspects of the human world has led to the development of research design and data collection methods which contrast strongly with established approaches to research in the natural sciences. Scott and Morrison (2007), defining qualitative methods, describe

> "the perspective that the science of the human world is fundamentally different from that of the natural world and therefore needs to employ distinctive (often interpretative) methods".
>
> (*op. cit*. p.182)

Some critics argue that this should not be the case; that the research methods which have been established by many years of peer debate and review, and which satisfy all the demands of a positivist definition of reliability, should provide the best framework for every study. The assumptions underpinning such a view emanate from the opinion that the human world can be explained in the same terms as natural science.

There is a demand, then, in research in the social sciences, for an acknowledgement of the validity of judgement, or subjectivity, within the evidence gathering process. It follows, then, that methods of data collection must involve interaction between researcher and subject and the translation of thoughts into words, either written or recorded. This fact alone, introduces an element of subjectivity, as the research subject generates a verbal version of non-verbal experiences and the researcher interprets the words. The involvement of the researcher may influence the behaviour or response of the subject, and the researcher's own experience is changing as a direct result of the involvement. Scott and Morrison (2006), state that subjectivity in educational research refers to

> "the researcher's relations with the subjects of the research [… and …] the emphasis that should be given by the researcher to their research subjects' desires, projects or intentions"
>
> (p.230).

Gage (1989) asserts that

> "The effects on people's actions of their interpretations of their world create the possibility that people may differ in their responses to the same or similar situations."
>
> (in Hammersley, 2007:153)

It is concluded, then, that subjectivity, the involvement of thought, emotion, opinion, perception and characteristics of individual personality, is an inherent factor in researching aspects of social science. Qualitative research is concerned with the analysis of individual attitudes, responses, behaviours and perceptions. Qualitative research generates data which carry with them inherent subjectivity and, far from being avoidable, that subjectivity is a feature of the data which must be represented in the analysis and evaluation. There is a subsequent concern, then, that subjectivity can limit or reduce the validity or reliability of the findings.

Some critics believe that "'rigorous research' involves the separation of researchers from the subject of their research" (May, 2001:21). This would seem to be a reasonable claim. If the research findings are to be valued by peers as knowledge to inform future practice, they must be robust under scrutiny. Mason (2004) makes the distinction between "accounts of" and "accounting for" (p.40) in emphasising the need to ensure that observation reports retain objectivity. He compares an account 'of' an event, as a statement of fact or description of what occurred, with accounting 'for' the event, in which the observer includes personal interpretation in the description. Kemmis (1988) questions whether "the practitioner can understand his or her own praxis in an undistorted way" (in Hammersley, 2007:173). He does, however, go on to argue that the values and perceptions of the practitioner are as much a part of the study as the observations. He is suggesting that subjective impressions are a vital component of the study. A critic might reasonably ask, then, whether it is possible to produce a systematic, controlled, empirical, critical study when working with subjective data.

Cochran-Smith and Lytle (2007) claim the systematic behaviour of practitioner researchers and describe their commitment to

> "systematic documentation of [general] issues [in addition to] students' learning, […] own teaching and learning, […], thinking, planning, […], questions, interpretive frameworks, changes in view, […], themes that recur"
> (in Campbell and Groundwater-Smith, 2007:27)

and their subsequent critical evaluation of the findings. The evidence suggests that qualitative research can be both systematic and critical.

Control within qualitative research is a matter for ethical consideration. Clearly it is not possible to isolate variables, as in natural science research. Nor would it be ethical to measure the effectiveness of proposed improvements to practice, by withholding improved

strategies from groups of subjects for the sake of comparison. (A teacher would not withhold praise from one group of pupils, in order to measure the impact of praise on motivation of a second group, for example). It is, however, reasonable to expect a study to keep account of precisely what changes or actions have been implemented outside 'usual' practice, and to avoid introducing other changes or at least consider other possible contributory factors in evaluating outcomes. Mockler (2007) offers a view that "authentic professional practice" consists of ethical aspects which include:

> "an ethic of subjectivity, for each individual must recognise the limits of his or her perceptions, the individuality of his or her values [and] an ethic of humility as each professional recognises that such subjectivity means that personal fallibility is not a failing but a condition of being human."
>
> (op. cit. in Campbell and Groundwater-Smith, p. 94)

3.3.2 Objectivity and my position as participant researcher

Hammersley's (2011) summary of the changing interpretations of the words 'objectivity' and 'subjectivity' concludes with a proposal that objectivity can be reconceptualised in order to minimise the risk of error in social research. A key feature of his proposal is the assertion of a need to disaggregate the various aspects of objectivity, which he names as "the inquirer, the mode of inquiry, the conclusions reached and the phenomena to which those conclusions relate." (*ibid.* p.37) His concept of objectivity is "continually being on one's guard against errors caused by preferences and preconceptions" although the word "error" can, in itself, be interpreted differently when viewed through different epistemological lenses. Some refer to judgements of truth:

> "The constructivist judge[s] truth by the standard of consistency between statements and the usefulness of the resulting coherent set of beliefs. We do test conjectures against observations, but not in the unproblematic way that the realist envisioned. Rather, the process of testing is itself nested in a specific set of pre-existing practices. This is the constructivist's contribution to the synthesis. The hope is that although the procedures for testing conjectures are relative to our specific practices, they will still lead to rational decisions about the conjectures."
>
> (Çakir, 2012:673)

Walsh (1999) warns against generalisation and argues for a more nuanced perspective on objectivity which critically analyses where detachment is possible and where the research cannot be value-free.

> In a more nuanced picture of the values-research relationship we may hope that the virtues and procedures of objectivity will re-emerge as, broadly speaking, a matter of disengaging some values and interests while engaging others; furthermore, of allowing the specific nature, circumstances and stage of the research to determine which is which [...].
>
> (p.39)

Together, Hammersley, Çakir and Walsh propose systematic attention to potential sources of error and actions to address them in which the values of the researcher are surfaced and in which detachment or attachment of values is articulated and justified. By setting out a 'statement of self' I have sought to make transparent the beliefs and assumptions which have been brought into this research and the lens through which the findings will be viewed. Potential sources of error and actions to address them have been addressed in Section 3.8. These, alongside the 'statement of self' and the 'paradigmatic lens' for the mode of inquiry will be revisited in Chapter 10 to facilitate a systematic consideration of the "standard of consistency" and the rationalisation of conjectures in the conclusions and the phenomena to which those conclusions relate.

One approach which maps well to the principles underpinning qualitative methods is case study (see Lincoln and Guba, 1985; Conrad and Serlin, 2011; May, 2002, for example), although the use of qualitative data is not a defining characteristic of the approach. In the following sections I will explain how action research can be located within the case study approach and will set out the bounds of the particular cases and the model of action research for this study, before offering an explanation of the place and limitations of quantitative data as a contributor to the insights sought. Responding to the philosophical debate about the classification of case study as method, methodology or genre (Hamilton and Corbett-Whittier, 2013) I am persuaded, by their treatment, to refer to case study as an approach to research.

3.4 Case study

Gerring (2007:20) proposes that "a case study may be understood as the intensive study of a single case where the purpose of that study is – at least in part – to shed light on a larger class of cases". He offers that case study research defines an individual case and has the capacity to consider multiple examples in order to build knowledge about that class of cases. His view of case study would be classified by Hamilton and Corbett-Whittier (2013) as "instrumental [i.e. it] focuses on an aspect, concern or issue of the case [...] rather than the desire to capture the case in its entirety [intrinsic case study]." (pp.12-13) They further seek

to classify case study as either “reflective” or “longitudinal”, although the subsequent assertion that reflective case study “can be concluded over a concise, contained period of time or can be extended to provide a deeper understanding of the developmental nature of the reflections” (p.16) does allow for a case study approach which is both reflective and longitudinal. They note that this supports an intention to “build an overview as well as a deeper understanding of the changes that might be occurring” (p.17). Case study research is framed by a constructivist paradigm, seeking to construct or reconstruct knowledge, to contribute to more informed understandings with trustworthiness and authenticity. (Denzin and Lincoln, 2000:166)

In this study the intention was to reconstruct a more sophisticated understanding of the learning of student teachers and the role of assessment strategy in that learning. A case study approach facilitates the close interrogation of the interaction of individual students with the assessment activity and allows the researcher to accumulate a body of evidence from which to seek threads of common experience. The study would be both reflective and longitudinal: reflective because it would follow the reflections of the researcher on the educational practice; and longitudinal because of the focus on changes over time and the need to flex in response to change. There are aspects of this research, the data collection methods in particular, which map readily to a case study approach and, with that in mind, the particular cases and classes of cases have been set out below. However, at the conclusion to the pilot study the significance of the findings for the practice and the immediacy with which the findings would influence that practice became evident and it was concluded that a case study approach would not be sufficient for the study. Furthermore, it was considered that the aim of the study is not sufficiently concerned with the “interactions, communications, relationships and practices between the case and the wider world” (Hamilton and Corbett-Whittier, 2013:11) to satisfy a case study genre. It became increasingly clear that the priority for this study would be the use of increasing knowledge to improve practice and the contribution that the particular case might make to other similar practices would be a consequence of the study, rather than an intention. Hence it is concluded that case study methods have been incorporated within an action research approach.

3.4.1 The institutional level case and the applicability to other institutions

The study is concerned with academic practices within courses of ITE in general and with the particular practices which are manifestations of one specific programme of study in one specific institution. As an external examiner for similar courses in other institutions and a member of networks of ITE tutors such as the Universities Council for Education of Teachers (UCET), the Association of Mathematics Education Tutors (AMET) and the Teacher

Education Advancement Network (TEAN), I have accumulated anecdotal evidence that the practice of incorporating reflective writing as an assessment tool in the specific institution is representative of practices in other institutions and this conclusion is supported in the literature (Clarke, 2003; Tan, 2013; Yost, Sentner and Forlenza-Bailey, 2000; for example).

3.4.2 The course level cases identified

In the pilot study the class of 'case' to be studied was PGCE Secondary Mathematics students in a single institution. The population of twenty-eight PGCE Secondary Mathematics students was selected as being the group of students for whom I had most immediate professional concern. In cycle two the population was extended to incorporate other secondary disciplines in order to address an emerging theory about the influence of disciplinary background and specialist development on achievement in the reflective writing assignment. In both cycles sampling was initially opportunistic, in that all population members were invited to participate and all those who gave permission were included in the sample.

3.5 Action research

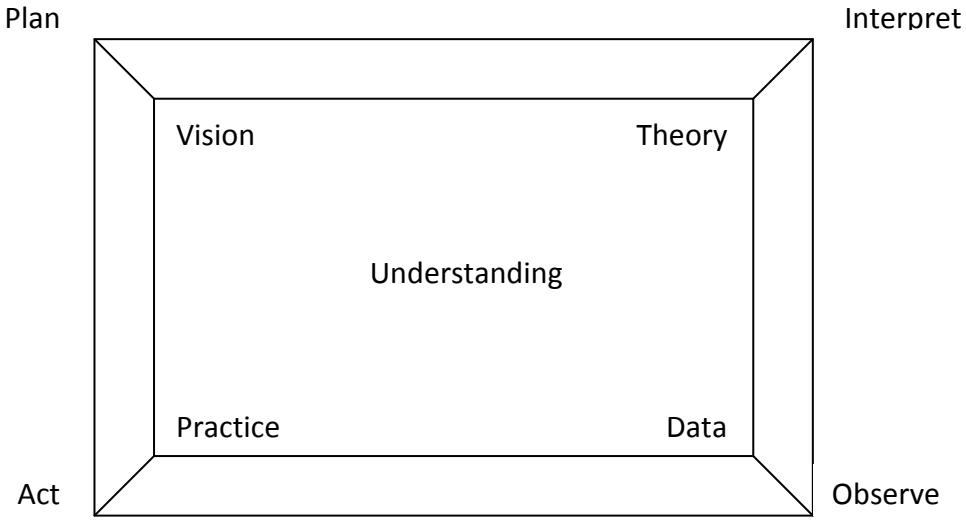
Action research supports the systematic identification of needs (the problem), prioritisation, action planning, evaluation of influence and review and reframing of the problem. Action research as a methodology responds to a concern by practitioners to understand practice and effect change which improves that practice. In fact, McAteer (2013) asserts that "action research is the only research approach whose primary purpose is to improve practice". Action research views humans as "purposeful, adaptive beings with capacity to change" and views knowledge as "empowering [and as a] catalyst for change". (Markauskaite, Freebody and Irwin, 2011). As such, it can be located in the constructivist paradigm (*op. cit*.).

Although many authorities demand that action research relies on an external researcher supporting the practitioner, Norton (2009) and Wells (2001) contest that view and propose models in which the practitioner becomes researcher primarily to effect change within the individual's educational context, but also to achieve professional development objectives within the institution.

Action research need not be unidirectional (Wells, 2001:19) nor rigid in structure (Koshy, 2010). Although the planning of action research is likely to set out a sequence of intended research activity which makes up a cycle e.g. Koshy's (*op. cit*.) planning, acting, observing, and reflecting; the position of the researcher as practitioner within the study inevitably

interrupts the orderliness of that plan. Wells (*op. cit*.) presents a model of action research (Figure 3.1) which makes useful connections between vision and planning, theory and interpretation etc. and presents examples of investigations of practice which lead to clarification and enrichment of vision and analyses of data which lead to new theorising, for example. The model omits direction of travel, a feature common to many other models of action research, and instead shows all aspects of the approach as contributing to the growth of understanding. This model supports reflexive development of practice and allows for the possibility of change within, as well as in response to, the progression of the study. This is important for a researcher who is living the practice which is the focus of the research, because it would not be possible, indeed it may be poor practice, to disengage from the findings whilst acting out the practice from which the findings were drawn. Kincheloe (2004:27) describes this as a feedback loop, explaining that "feedback loops allow for new insights and ideas to emerge as concepts are viewed in light of new perspectives and different ways of making meaning".

Figure 3.1 Model of Action Research
(adapted from Wells, 2001:20)



3.5.1 The rationale for an action research approach

Through my engagement with ITE students and with colleagues in ITE my awareness of a 'problem' within the course design had been heightened by student scepticism about the contribution of reflective writing tasks to their development as teachers, the superficial collection of evidence that tasks had been completed and the ongoing articulation of a disconnect between theory and practice or institution- and school-based learning. Changes in national policy shifted the emphasis from educating teachers for a master's level profession to training teachers in a predominantly school-led context and led to a renewed consideration of the contribution that university and/or master's level programmes might

make to the development of teacher practice. Concurrently, the shift in emphasis resulted in the restructure of the course, fragmenting it into discrete units (or modules) to increase the marketability to school-based providers of ITE and facilitate the delivery of selected elements by school partners.

Throughout this period of change my reflective and reflexive activity led me to the conclusion that principles of constructive alignment of assessment should underpin course design and that the academic work for which credit is awarded should have the capacity to contribute to the development of student teacher practice. In addition, I was concerned about the workload of student teachers and the influence that this has on well-being and subsequently on progress and achievement. These factors combined to energise me to strive for change in ITE practice, both locally and more widely.

In simplistic summary:

- There was a ‘problem’ within the course and assessment design and a ‘vision’ for a course which is effective in implementing constructive alignment of assessment
- There was a proposal for action – the modification to the course and assessment design
- There were cycles of evaluation, review and further action
- There was a need to ensure that the evaluation is rigorous and trustworthy in order to ensure that subsequent changes can be justified and to contribute meaningfully to the body of knowledge which informs decision makers in the field of ITE.

The reader is asked to note that, due to the reflexive nature of action research, the following sections have been developed as the study has progressed. Whilst it might be expected in many studies that the methodology would be finalised before embarking on the study, in this study the research questions and, subsequently, the data collection and analysis methods have evolved as part of the cyclic review and development. Hence, in the sections below, there is reference to findings and conclusions from the first cycle, as a necessary justification for the actions in the second cycle. These findings and conclusions are fully articulated in Chapter 4.

A table summarising the action research cycles as viewed at the end of this study is included as Appendix 6.

3.5.2 Cycle one (Pilot study)

A key aim of cycle one was to review the principles of constructive alignment and gain an insight into the capacity of the assessment task to contribute to learning (the fundamental principle of constructive alignment) and to developing practice as teachers (extrapolating the principle). The course team, of which I am a member, had recently redesigned the assessment strategy in a response to concerns that:

- externally authored evidence that a student has satisfied the minimum requirements of the professional standards was limiting student reflection on the meaning and intent of the professional standards
- entries in student reflective journals had a tendency to be used as descriptive accounts of tasks completed or actions taken to demonstrate competence in discrete professional standards
- ideas and theories from research literature were frequently perceived by students and mentors as abstract and unrelated to practice.

The changes were underpinned by an aspiration to promote reflective practice as a characteristic of graduate teachers.

The research question at this stage, then, would be: How can I be confident that student engagement with the reflective writing assignment contributes to their development as reflective teachers?

Other questions which were presented at this time were: What do student teachers need to learn in order to improve their practice? In what ways can that learning be initiated and sustained through an assessment strategy? In what ways can that learning be demonstrated? In what ways can that learning be measured? At the point of writing, having progressed in my understanding of both the context and of the nature of this study, I became aware of a misalignment between the questions and the methods and this limitation is addressed in the main study.

The actions related to changes to the course design (practice) are as follows:

- demote the use of externally authored evidence of meeting the professional standards and promote replacement with a requirement for reflective accounts of improving practice wherever possible;
- locate the reflective accounts as high stakes assessment;
- incorporate a requirement for engagement with theories from literature, establishing the status of this requirement by embedding it within the assessment criteria.

3.5.3 Cycle two (Main study)

The personal theories arising from the interpretation of findings from cycle one can be summarised as follows:

- Students' responses to the reflective writing tasks appeared to be constrained by the design of the assignment task;
- The assessment criteria appeared to promote a formulaic approach to assignment writing in terms of both structure and content;
- An individual's confidence with academic writing appeared to influence her/his perceptions of the value of the task for improving practice;
- There was a suggestion, in student responses and informal discussions with colleagues, that discipline related experiences or backgrounds may affect confidence and/or competence with academic writing.

This theorising and reflection at this stage also initiated the formulation of a theoretical model through which to frame the design of courses of ITE. This model is presented in Chapter 6.

Developing the practice in response to these theories, whilst maintaining the vision for a course which is effective in implementing constructive alignment of assessment, the following changes would be implemented within the course design: firstly modify the assignment task to reduce the constraints and secondly modify the assessment criteria to reduce the imposition of structure and content.

In addition, as a result of reflection on the implications of the initial findings for the research methods:

- new cases would be introduced to explore the connection between academic discipline and confidence with academic writing and to use the relationship between academic- and practice-based achievement as a broad indicator of any connectivity between reflective writing and practice
- I would systematically collate my own reflective writing to acknowledge and record my own reflective practice as a tool for gaining a personal perspective on reflection and reflective writing, as a mechanism for documenting the emerging and evolving interpretation of findings and to promote habits of critical reflectivity in my own study

- a systematic analysis of the assessment criteria would be undertaken, to evaluate the potential influence of the criteria on reflective practice. In order to achieve this, a further review of the literature would be undertaken with a specific focus on frameworks of reflection and reflective writing. This activity is documented in Chapters 5 and 6.

Arising from the emerging theories at this stage, the research questions were adapted to refine the focus on the interaction, if any, between reflective writing and professional practice. The revised questions were:

- What are the factors which influence student teacher engagement with the reflective writing tasks which are compulsory elements of their teacher education programme?
- To what extent does a student teacher's reflective writing portray her/his reflective practice?
- Is there a connection between a student teacher's reflective writing and her/his professional achievement?

Cycle three (Next steps)
The outcome of cycle two is a proposal for a review of the principles which underpin the existing course and assessment design. This thesis concludes with the proposals for change which would initiate a third cycle of action research activity.

3.6 Mixed methods

Onwuegbuzie, Leach and Collins (2011) offer comprehensive but not exhaustive lists of "established classes of quantitative [and qualitative] data analysis techniques and descriptions". From the lists it was possible to locate the data analysis techniques to be used in this study as displaying the characteristics of simple linear regression (quantitative) and manifest content analysis (qualitative) i.e. "describing observed (i.e. manifest) aspects of communication via objective, systematic and empirical means" (*op. cit.*). (The word "objective" in this definition is included but with consideration of the earlier discussion of the concept of objectivity.) Similarly the techniques for cross-case analysis have commonality with a case-ordered effects matrix, with some alignment to the predictor-outcome matrix techniques. The authors propose that any research methodology which employs a combination of those techniques classed as qualitative and quantitative can be termed a "mixed research study" and develop a set of criteria for mixed analyses. In brief summary, key points of interest from their thirteen criteria are: the rationale for mixing techniques is developmental i.e. the intention is to use the quantitative data to inform the analysis of the qualitative data, the quantitative and qualitative data are collected concurrently and the qualitative data has the higher status, so that the methods would be classified as "qualitative dominant".

3.6.1 The purpose and limitations of quantitative methods in this study

Linear regression techniques have been used in this study in cycle two, in response to student perceptions that academic experience is a factor in the attainment in the reflective writing task and that it could be expected that a student could demonstrate excellence in practice and not in the assignment. Hence there was some attempt to employ regression analysis to explore correlation between attainment in the assignment and achievement in the practice element of the course.

The grading of students against each of the Teachers' Standards (TS) and overall is a coarse measure if used for comparative analysis. There are four possible values: one to four inclusive; and only three of these will have been used for the sample students because grade four indicates an unsuccessful outcome. No student who was unsuccessful was included in the sample as s/he would be considered to be a current student and I had ensured that my relationship with all those in the sample was protected by completion of the course. Furthermore, the occurrence of a grade three is expected to be low due to strategic intervention to support students to achieve a grade two minimum wherever grade three is anticipated. Students' performance grades in isolation, then, would provide little information which may be used to distinguish or select individuals. In seeking distinguishing features, the following were explored:

- Relationships between individual and overall standards based on features of the descriptors. e.g. Teachers' Standard Four makes explicit reference to reflection and self-evaluation. Therefore a comparison of Teachers' Standard Four grade with the overall grade may offer insight.
- Calculation of the mean grade across the Teachers' Standards offers a finer indicator of performance. A search for any correlation between Teachers' Standard outcome and academic outcome for the reflective writing is made more feasible by the calculation of mean performance grade.

3.7 Research tools

The purpose of the study is to critically evaluate the influence of reflective writing tasks, set as part of the assessment design of a course of teacher education, on the learning, perceptions and practice of student teachers and, arising from that evaluation, to propose improvements to the assessment design. To achieve that purpose, the study sets out the following research questions:

- What is known about reflection?
- What is known about the place that reflection holds in developing teacher practice?
- What are the factors which influence student teacher engagement with the reflective writing tasks which are compulsory elements of their teacher education programme?
- To what extent does a student teacher's reflective writing portray her/his reflective practice?
- Is there a connection between a student teacher's reflective writing and her/his professional achievement?

The first two questions have been addressed initially by the literature review and the study aspires to add to that body of knowledge by exploring the perceptions of reflection of the participants and the influence it has on their developing practice as teachers. The final three questions will be addressed initially through a study of the particular cases within this study with the intention of offering some theories about the relatability of the findings to other similar cases.

An action research approach was designed to explore the interconnections between the rôle of reflection in improving practice as a teacher, the communication of reflection in writing and assessment tasks which require a reflective response. Data consisted of student teacher attainment in relation to professional standards and academic assessment criteria to inform understanding of any connection between reflective writing and professional achievement, graduate teacher perceptions of the role of reflection in developing practice and of the influence of the reflective writing assessment task to inform a response to the third question and student teacher reflective writing assessment work to address the fourth question.

3.7.1 Questionnaires

Participant perceptions were gathered using questionnaires (Appendix 7). The questions about foci for reflection were developed from studies completed by Loughran (1996:84-88) and Janssen, deHullu and Trigelaar (2008) in which the reflective writing of student teachers was analysed and organised into themes in order to gain knowledge about the priorities and concerns of those students. Further questions about the perceptions of the importance and usefulness of assessed reflective writing were informed by the study by Imhof and Picard (2009:150).

At the end of cycle one, which was considered to be a pilot of the research tools and methods, the questionnaires were revised to respond to limitations identified (Appendix 8).

3.7.2 The reflective writing assignment design and marks

The reflective writing assignment considered in the pilot study grouped the professional standards in force at that time into eight 'focus areas', and posed specific prompts for reflection under each focus area. The assignment was marked and graded using an assessment criteria rubric (Appendix 9) and the assessment strategy included formative feedback / feedforward points throughout the year, which students would draw from to develop a summary 'critical self-evaluation'. Hence it is this summary self-evaluation which was considered to most accurately represent the levels of reflection exhibited by the student at the point of graduation.

3.7.3 Professional performance grades

As part of the course assessment strategy, each student was awarded a grade for professional performance by her/his mentor through an evaluative discussion in which the student would present a portfolio of 'evidence'. Students were encouraged to share their reflective writing as one source of evidence of progress, although it was not to be marked by the mentor. Although the criteria for this assessment were changed between the pilot and main study (due to the introduction of new professional standards), the process for employing the descriptors remained the same.

3.7.4 Tools for analysis

Participant reflective writing and attainment data were gathered from the students' electronic portfolios after obtaining the necessary permissions. Reflective writing was analysed using a rubric devised by Ward and McCotter (2004:250). The rubric offered a framework for systematic categorisation of characteristics of reflective writing, supporting analytical comparison with the other participant attributes (in effect, a case study approach).

At the conclusion of cycle one it became necessary to explore the potential which the assessment criteria rubric for the assignment had to influence reflective activity. Therefore cycle two incorporated the assessment criteria as a further source of data.

The changes to the assessment design in cycle two reduced the number of reflective writing prompts and reduced the constraints within those prompts. The requirement for an overview self-evaluative reflection remained and it was anticipated that this, again, would be the optimum element within which to locate written evidence of reflection.

3.8 Assuring the quality of this research

In this section I have sought to set out the strategies which have been used to assure the quality of research. In doing so, I have considered a number of constructs which are widely understood to support quality assurance in research. These are: validity, reliability, generalisability, and rigour. The debate about the meanings and contextualisation of these constructs is widespread and there is not the scope, within this thesis, to attempt to pay attention to the nuances of the discourse. This section will, therefore, adopt the approach advocated by Hammersley (2011) by presenting an overview of the ways in which I have sought to assure quality by identifying the potentials for error and the actions taken to minimise those risks with respect to: the inquirer; the mode of inquiry; the conclusions reached; and the phenomena to which those conclusions relate.

3.8.1 Validity

The meaning of 'validity' and the place it holds in educational research or, more specifically, qualitative research in education has been debated for many years. (See Scott and Morrison, 2007; Toma 2002, for example.) This is problematic because, adopting an interpretivist lens, it must be acknowledged that the meaning of validity is a construct which may have different meanings for different individuals or groups, a notion endorsed by McAteer's discussion of literature around the theme (2013:114). I have encountered educational researchers who argue that validity has no place in their research and it is important to understand the rationale for that assertion which, I believe, lies in the acceptance of a single meaning of the word 'validity' and the dominant discourse around the meaning of the term within quantitative research in the natural sciences. Scott and Morrison (2007:253) refer to two types of validity: "Internal validity is [...] a measure of accuracy and whether it matches reality; external validity [...] is a measure of generalizability". Immediately evident here is the requirement for 'measure', which presents an inherent barrier for qualitative methods. Lincoln and Guba are commonly deferred to as authoritative in the development of strategies for quality assurance in qualitative methods (see Scott and Morrison, 2007; McAteer, 2013; Hammersley, 2007; O'Donoghue, 2007; for example) and I have considered their notion of trustworthiness (Lincoln and Guba, 1985:289-331), noting the need to remain alert to formulaic application or claims that, by adopting the 'formula' I might infer a single reality from the findings. Toma (2002:267) argues that "approaches based on trustworthiness do not dismiss validity, instead recasting it in more relativist terms and highlighting rigor in the application of method".

3.8.2 Generalisability (or external validity)

The debate about generalisability of findings from case study and action research approaches and in interpretivist paradigms is well documented (see Gom, Hammersley and Foster, 2000; Gerring, 2007; Williams, 2002) and is framed within the wider debate about positivist perspectives on constructivist methods. In the earlier discussions about case study and action research approaches, the intention was stated that the study of the particular cases selected and the particular aspect of practice would contribute to knowledge about other related cases and practices. The implication is an assertion of generalisability of findings. Norton (2009:63-64) offers some mediation here, proposing that "if our action research study finds that an innovation works well, it is only sensible to recommend to our colleagues that they try something similar if they are facing a similar issue". She offers "relatability" as an alternative construct which is helpful in the negotiation of meaning in this context and this is supported by McAteer (2013:123), in her assertion that "it [action research] does seek to produce understanding which can be shared, related and interrogated".

The following brief consideration of limitations acknowledges the case study and action research approaches as contributing to the construction of knowledge about similar practice and 'shedding light' on other classes of cases with similar characteristics.

The plan to restrict the pilot study to the secondary mathematics student teachers in a single institution was justified by the accessibility of the cohort and my concern, as the subject specialist tutor for that cohort, to improve the experience of students for whom I was responsible. Hence the sampling method was purposive. There were two constraints here, firstly in drawing the sample only from the single institution and secondly in the use of students from the secondary mathematics course only. There is some evidence to suggest that issues arising at this institution are representative of those experienced by other HE providers of ITE (see Robinson, 2004 and Sewell, 2008 for example). It is noted, however, that mathematics specialists may bring particular experiences and expectations, attitudes and perceptions (see Wyatt-Smith and Klenowski, 2013 and Fry *et al*., 1999, for example). Evidence of such constraints was sought in the analysis of data from the pilot study and addressed by expanding across subjects in the main study.

3.8.3 Reliability

The documentary analysis was weighed against a summary of student perceptions, gathered by questionnaire in order to enhance the reliability of the findings this study (adopting the principles of triangulation). The questionnaire sought to establish student views

about the links between university and school aspects of the course, the ways in which theory and research have informed their developing practice, and the influence of the assessment strategy on their developing practice.

A further inherent influence on the reliability of the findings is the potential for pre-conceptions or assumptions to influence interpretation due to my own knowledge of, opinions of and prior involvement with the participants. This is, to some extent, addressed by the focus on past, rather than present, students, and by the anonymisation of documents. However, it is noted that this is a specific example of a potential source of "error". Dillon (2014) asserts that researchers and researched bring with them pre-existing power relations. Drawing on Foucault's definitions of power and power relations, he views power relations as "a component of our actions and interactions that cannot be separated" (p.214) and argues that, therefore, "quality action research should include inquiring into the power relations and actions of researchers and stakeholders and what that means for the research" (p.209). Dillon's strategy for managing this aspect of his own research is the use of a reflective journal "not to remove the subjectivity [brought to the research] but to understand it" (p.212). I have sought to adopt the same approach as an enhancement to the methodology in cycle two. The introduction of a reflective log has enabled me to scrutinise the assumptions and values which have influenced my practice and my research. As a result of this reflective activity, at the end of cycle two, I have recognised a need to consider the way in which I have privileged my own interpretation of participant responses and reflective writing. This threat to the reliability of the findings is further discussed in Chapter 8.

Similarly, in searching the assignment work of the participants, I sought to bring to light the experiences and assumptions which I brought to the analysis of those documents. Wyatt-Smith and Klenowski (2013) suggest that "judgement practice is cumulative" (p.13) and present a view of engagement with assessment criteria as dynamic and unpredictable, due to the learning process inherent in repeated application of qualitative criteria to changing contexts. They offer a model of explicit; meta-; and latent criteria. In adopting the Ward and McCotter (2004) framework for the analysis of written reflections, an 'annotation' approach was employed. (See Appendix 20 for example.) This approach was adopted as a means of making transparent the judgements made and, thereby, presenting the judgements made for critical testing by the educational research community. The annotations include the reasoning underpinning the classification attached to the sample, and these were revisited systematically, in an effort to explicitly articulate the meta-criteria and latent criteria, and thence improve reliability of classifications.

3.8.4 Rigour

Kincheloe (2004) asserts that agreement in research is elusive and that decisions about the status of research activity are susceptible to power related influences and are often the source of conflict. He argues that rigour in research is maintained by recording and surfacing conflicts and contradictions and the responses to address these "as testimony to the complexity of knowledge work" (p.47). There is a sense in which the recognition of complexity and the corresponding acknowledgement of the need for responsiveness may be viewed as increasing freedom. Kincheloe's view is that "a key element of rigour [...] involves the ability to use this freedom wisely and for socially and educationally compelling purposes" (p.48).

Through my Reflective Log, and within the thesis, I have sought to maintain a record of the conflicts and dilemmas encountered and to assure transparency in the decisions made. In addition, in an effort to assure repeatability and minimise the risk of error (see Section 3.3.2) a colleague with experience in the field of teacher education who was not a tutor on the PGCE undertook an analysis of four extracts using the rubric and a comparison, with me, of the qualities identified.

3.9 Ethical considerations and actions to address them

In this section the framework advocated by BERA (2011) and the language of that framework have been adopted to support systematic consideration of ethical issues which were taken into account in planning this study.

3.9.1 Responsibilities to participants

The participants in this research are graduate teachers who have completed a course of ITE. They are considered to be active in the research as they form part of the context of the study and have been given the opportunity to share their perceptions of the assessment activity and the influence it has on their practice. However, it will be argued later that opportunities to benefit more from the participant voice have been missed and, therefore, the label of 'active' has been constrained to some extent by researcher privilege.

3.9.2 Voluntary informed consent

All participants were provided with an information sheet (Appendix 10), setting out the reason for their participation, how their responses, reflective writing and assessment outcomes would be used and how the findings of the research would be reported. The information sheet assured them of confidentiality. They were asked to provide signed confirmation that they understood this information and consented to the use of their

questionnaire responses, academic work and outcomes for the purpose of the study (Appendix 11) and no data was handled prior to receipt of this consent letter.

The students were approached immediately after the conferment of awards, as an assurance to the participants that responses could have no influence over course outcomes, in the manner of Skinner (2010: 285). The, now, graduates, were provided with questionnaires and asked to permit the use of the electronic portfolio in which the reflective writing and attainment data was held. Each member of the population was allocated a unique random identifier (URI). The artefacts required were downloaded from the electronic portfolios and labelled using the URI to facilitate anonymous comparative analysis.

3.9.3 Openness and disclosure

No deception or subterfuge was employed within this study. Only data from consenting participants was collated.

3.9.4 Right to withdraw

Within the information sheet, participants were advised of their right to withdraw from the research at any time with or without reason.

3.9.5 Vulnerability

Although no participant in the research is a child, vulnerable young person or vulnerable adult, there is recognition of the potential for feelings of vulnerability as a consequence of the tutor-tutee relationship and the focus on assessment tasks and outcomes which have a high status in their future practice and employment. The information sheet sought to reassure participants that the findings of the study could, in no way, influence their outcomes. However, the vulnerability of students and the complexity of the tutor-student relationship on a course of ITE are acknowledged. To some extent the influence of the relationship with students was minimised by drawing on the work of students after they had completed the course. It was noted, however, that these teachers would be in the ‘NQT’ (newly qualified teacher) induction year and that this could lead to a continued sense of accountability to the tutor, or a concern that responses may be passed from tutor to NQT mentor.

3.9.6 Incentives

There was no use of incentives. All participation in the research was voluntary and unrewarded.

3.9.7 Detriment arising from participation in research

There was no disadvantaging or privileging of any participant anticipated prior to, or identified during, the cycles of research to date. The nature of action research would suggest that the participants may be disadvantaged when compared to future students because of the improving practice which is the aspiration of the study. Although it is assumed that the participants, for whom evidence-based practice is a professional requirement, would understand that development, it is acknowledged that this potential privileging might have been more explicitly addressed within the information sheet.

3.9.8 Privacy

All participants were assured of confidentiality and anonymity. In order to seek connections between perceptions and attainment, it was helpful to be provided with a name on the questionnaire. It was, however, made clear that this was optional and three respondents in cycle two did opt to remain anonymous.

3.9.9 Disclosure

There was no requirement for disclosure of findings of the research or to override agreements on confidentiality and anonymity.

Participants of both cycles of the research will be given access to the thesis by direct email contact where they have provided contact details, and through the library.

3.9.10 Responsibilities to the sponsors of this research

The sponsor of this research is my employer, insofar as my doctoral study has been funded and resourced by the academic department in which I teach. Although the focus of the research is on my own practice in course design, any changes or proposals have implications for the practice of colleagues within the department. In addition, conclusions have the potential to raise questions about wider practices across the institution and beyond and, therefore, to be perceived to be questioning or challenging established practice. Whilst there is no intention to offer judgement or cause harm to the institution or staff, I do aspire to provide “germs” (Dewey, 1933) for reflection and to support colleagues to be “open-minded”; “responsible”; and “whole-hearted” (op. cit.) in their critical appraisal of the influence of teaching and assessment.

The Dean of Faculty and Head of Department have been assured that the findings will be used solely for the purpose of improving understanding of the dynamics of teacher education in the Higher Education sector and that findings and any recommendations will be related to general issues. Any recommendations or theories in relation to the specific institution will be

shared with the institution but not with the wider community except with the permission of the institution.

3.9.11 Responsibilities to the community

As mentioned above, the findings of the research will be made available to the community through the publication of the thesis and papers arising from that publication.

3.10 Conclusion

The objectives of this study were to:

- Identify characteristics of reflective writing which may be used as indicators of reflective practice
- Examine the relationship between academic and professional achievements by student teachers
- Critically analyse and evaluate the assessment guidance and criteria which govern the nature of the student submissions and the grades awarded for both academic and professional achievement
- Explore student perceptions of reflective practice and reflective writing tasks in order to gain insights into the influence of the assessment tasks on their learning and their practice as teachers.

Using qualitative dominant mixed methods, the particular case of postgraduate student teachers from one higher education institution, specialising in a single phase of education, was explored using an action research approach. In the selected case the course design adopted principles of constructive alignment of assessment underpinned by a claim that the assessment strategy aims to promote authentic reflection and, through that reflection, the construction of knowledge and the development of professional practice.

This chapter has presented a methodology through which to explore the interactions between the assessed work, the assessed students; and the assessment design and contribute to the body of knowledge about reflection and reflective writing.

4. THE PILOT STUDY (CYCLE ONE)

This chapter begins by considering the purpose of the pilot study and the contribution which it makes to the study as a whole. Lapan, Quartoroli and Riemer (2012:256) distinguish between a “pilot test” which, they propose, may be “as simple as sharing the instrument with a colleague” and a “field test”, in which the instrument is used “on participants similar to the actual participants”. This pilot study can be viewed as incorporating both elements. Firstly, I have shared the complete proposed study, incorporating the rationale, underpinning literature, methodology and data collection and analysis methods with colleagues, to ensure that the proposal has the potential to achieve the intended aim. Secondly I have tested the research instruments to ensure that they support that aim through a capacity to provide relevant and informative data. In this particular study, the outcomes of the pilot were influential in ways which I had not anticipated. As a consequence, the two aspects of piloting indicated above were supplemented by a third, which is the scoping of the significance of the work and the immediacy of the implications for developing practice.

The narrative in Chapter 3 explained how, as a consequence of the influence of the findings from the pilot study on local practices, there was a shift in paradigm and a transition to locate the case study of the original proposal as the first cycle of an action research approach for the main study. Hence the thesis as a whole recounts the cycles of an action research approach. However, in order to present a full and transparent account of my journey, in the exposition which follows, the methods, findings and conclusions from the pilot study are presented as the original case study. The chapter concludes by showing how the findings from this case study prompted changes to the course assessment strategy and how the acknowledgement of a need for change resulted in the shift to an action research approach. Reflecting on the assumptions, preconceptions and need for personal change within the pilot methodology, I revisited the process of developing a framework for reflection (Chapter 5) and was able to develop a theoretical model (Chapter 6) which would underpin the work which was to follow.

4.1 The aims, purpose and status of the pilot study

The aims of the pilot study were to review, within the literature, the principles of constructive alignment and to gain an insight into the capacity of the assessment task to contribute to learning (the fundamental principle of constructive alignment) and to developing practice as

teachers (extrapolating the principle). The course team, of which I am a member, had recently redesigned the assessment strategy in a response to concerns that:

- externally authored evidence that a student has satisfied the minimum requirements of the professional standards was limiting student reflection on the meaning and intent of the professional standards;
- entries in student reflective journals had a tendency to be used as descriptive accounts of tasks completed or actions taken to demonstrate competence in discrete professional standards;
- ideas and theories from research literature were frequently perceived by students and mentors as abstract and unrelated to practice.

As in Alger's (2006) study, the goals of the reflective writing assignment were to "help students learn how to observe and analyse their own teaching [and to] uncover beliefs and assumptions about teaching" (p.288).

The changes to the course design which were the focus of this pilot study were:

- demote the use of externally authored evidence of meeting the professional standards and promote replacement with a requirement for reflective accounts of improving practice wherever possible;
- replace the reflective journal with reflective accounts of progress in response to prescribed foci;
- locate the reflective accounts as high stakes assessment;
- incorporate in the reflective accounts a requirement for engagement with theories of learning and teaching from literature, establishing the status of this requirement by embedding it within the assessment criteria.

The changes to the course had been underpinned by an aspiration to promote reflective practice as a characteristic of graduate teachers. However, in hindsight, an honest self-criticism suggests a tendency towards unquestioning acceptance of principles and the related expectation that the research would conclude positive influence on the progress of student teachers. By making these changes it was intended that students would be compelled to adopt an attitude of reflection on progress in relation to the professional requirements and the connection that progress has with the theoretical perspectives of others.

The main research question at this stage, then, would be: How can I be confident that student engagement with the reflective writing assignment contributes to their development as reflective teachers?

Other questions which were presented at this time were: What do student teachers need to learn in order to improve their practice? In what ways can that learning be initiated and sustained through an assessment strategy? In what ways can that learning be demonstrated? In what ways can that learning be measured? The methodology chapter has already noted the misalignment between the questions and the methods. Sections 4.5.1 and Section 4.5.2 set out the ways in which the main study was adapted to address these limitations.

4.2 The methods for data collection and analysis

A qualitative dominant mixed methods approach was designed to explore the interconnections between the role of reflection in improving practice as a teacher, the communication of reflection in writing and assessment tasks which require a reflective response. Data consisted of: student teacher attainment in relation to professional standards and academic assessment criteria, student teacher perceptions of the role of reflection in developing practice and of the influence of the reflective writing assessment task and student teacher reflective writing assessment submissions.

Participant perceptions were gathered using questionnaires (see Chapter 3). Participant reflective writing and attainment data were gathered from the students' electronic portfolios (with the necessary permissions). Reflective writing was analysed using a rubric (Appendix 12) devised by Ward and McCotter (2004:250), henceforward referred to as the W&M rubric. The W&M rubric offered a framework for systematic categorisation of characteristics of reflective writing, supporting analytical comparison with the other participant attributes.

4.2.1 The participants

The population of 28 PGCE Secondary Mathematics students 2010-11 was selected as being the group of students for whom I had most immediate professional interest. The students were approached immediately after the conferment of awards, as an assurance to the participants that responses could have no influence over course outcomes. The, now, graduates, were provided with questionnaires and asked to permit the use of the electronic portfolio in which the reflective writing and attainment data was held. Eighteen returned completed questionnaires and all eighteen gave permission for the use of portfolios. Each

member of the population was allocated a unique random identifier (URI). The artefacts required were downloaded from the electronic portfolios and labelled using the URI to facilitate anonymous comparative analysis.

4.3 The findings from the pilot study

4.3.1 Student perceptions

4.3.1.1 Influences on personal understanding of teaching (Questionnaire question 1)

All of the prompts explored were considered (in terms of mean ratings) to have had a positive influence on participants' understanding of teaching, with 'ideas from tutor and mentor' and 'systematic self-evaluation' noted as the strongest influences.

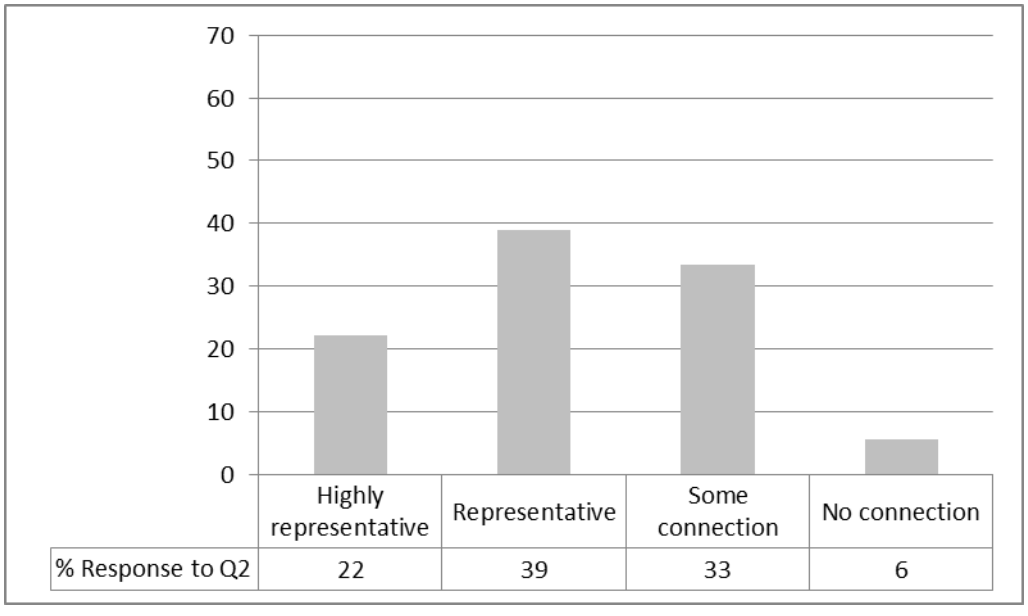
67% rated 'focused reflection on incidents from teaching practice' as having 'strong' influence, with a further twenty-two percent answering 'some' influence. The remaining eleven percent (two respondents henceforth referred to as 'A' and 'B') rated this aspect as having little influence.

4.3.1.2 Reflective writing as representation of professional growth (Questionnaire questions 2, 6 and 7)

The mean rating indicates that participants viewed the reflective writing assignment as representative of their progress as teachers. The distribution of responses is shown in Figure 4.1. The profile of the one student, henceforth referred to as 'C' who responded "No connection" has been explored in detail later in this section.

Figure 4.1 Distribution of ratings for question 2.

Q2. In your opinion, to what extent did the reflective writing assignment represent your progress as a developing teacher?

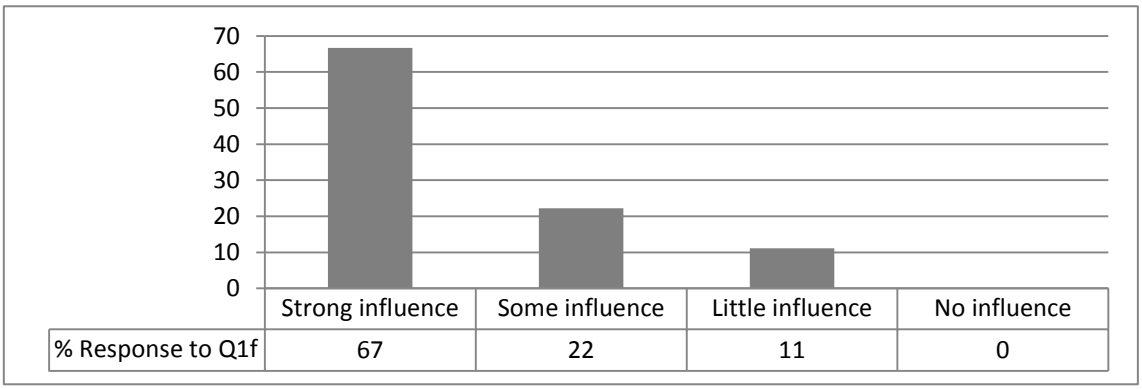


Of the thirty-nine percent (seven students) who saw little or no connection between the assignment and their progress, six (including 'C') had responded positively to the influence of internal reflection on their development. This distinction is worth exploring further. Hence Figure 4.2 presents a comparison of responses to questions 1f and 2, showing that, whilst responses were positive, perceptions were that the influence of reflection on practice was not aligned with the capacity of the assignment to demonstrate that impact. Responses to question seven included further indicators of this perception:

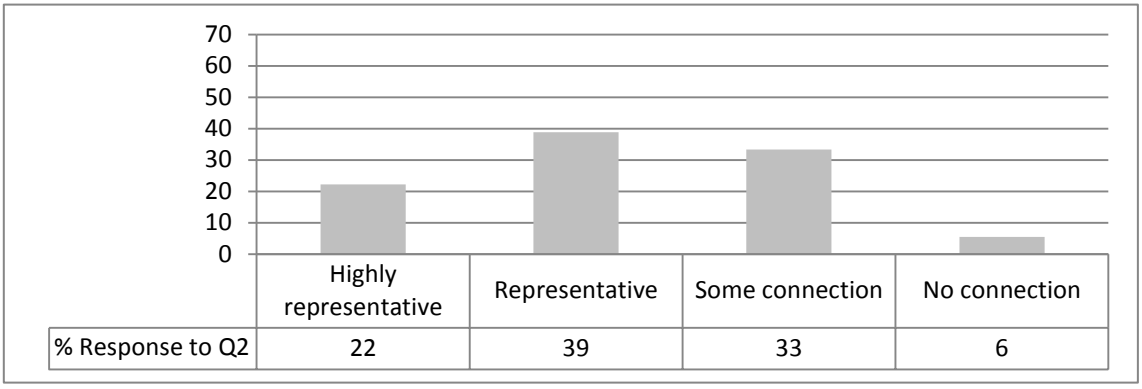
> "I made far more progress than my writing could have conveyed"; "my reflective writing [was] not in line with [my] grades. [...] It was not a good way to track my progress"; "I [...] felt let down by my ability to write"; "My progress as a teacher is more about my performance in the classroom".
>
> (Student D)

Figure 4.2 Comparison of ratings for questions 1f and 2.

Q1f. To what extent has focused reflection (internal) on incidents from your teaching experience influenced your personal understanding of teaching during the PGCE year?
Q2. In your opinion, to what extent did the reflective writing assignment represent your progress as a developing teacher?



	Strong influence	Some influence	Little influence	No influence
% Response to Q1f	67	22	11	0



	Highly representative	Representative	Some connection	No connection
% Response to Q2	22	39	33	6

In contrast, positive perceptions included:

> "reflections [...] showed progress in the range of areas which I considered"
>
> "good for evidencing the different progressions made"
>
> "it does show one's progression as a teacher from the view of one's ability to evaluate, reflect and improve"
>
> "although I found the practice of reflective writing quite difficult, I believe it was a fair method"
>
> (Student E)

Student F observed potential issues in terms of equity and objectivity:

> "I believe that reflective writing is effective to some extent as it does show one's progression as a teacher from the view of one's ability to evaluate, reflect and improve on one's practice. However there is the issue of subjectivism since the writing is based on personal opinions which could be subject to various external influences and personal experiences. Another issue is the fact that not every trainee goes through the same experience or learning environment and this can impact the rate of progression of each individual."
>
> (Student F)

4.3.1.3 Initiating reflective writing (Questionnaire question 3)

The prompts which were judged to be most helpful for initiating reflective writing were 'incidents arising in teaching experience', 'aspects of personal interest' and 'targets for professional development'. It is noted that each of these could be considered to be an internal driver, in contrast with those aspects rated as less helpful. Table 4.1 presents the prompts in ascending order of mean rating. The notion of internal drivers proving most helpful is supported by the additional prompt proposed by one student as 'observations of other teachers'. Student D rated the QTS standards as 'Never helpful' as a prompt for reflection. Student C commented on the constraints imposed by the word limit and the prescribed foci for reflection.

Table 4.1 What were the prompts which proved most helpful for initiating reflective writing?

Prompt	Incidents arising in your teaching experience	Aspects of personal interest	Targets for your professional development	Theories and/or ideas from your reading	Theories and/or ideas from your tutors or peers	Focus area descriptors	QTS standards
Mean rating	1.2	1.4	1.6	1.9	1.9	1.9	2.4
	Internal drivers			External drivers			

Key

1	Very helpful
2	Helpful
3	Rarely helpful
4	Never helpful

4.3.1.4 Efficacy of reflective writing for communicating reflection (Questionnaire questions 4 and 5)

The distribution of responses to question four is shown in Figure 4.3. The mean rating of 2.2 suggests a perception that reflective writing does communicate personal reflections on practice, and this is supported by the textual responses to question six, which describe reflective writing as “very powerful”, “helped me to notice”, “forced me to try to think more deeply”, “enables you to organise and analyse”, “forces you to look back”, “very effective way of showcasing” and “made it easier for me to evaluate”.

One student described a change in perception and attitude over time:

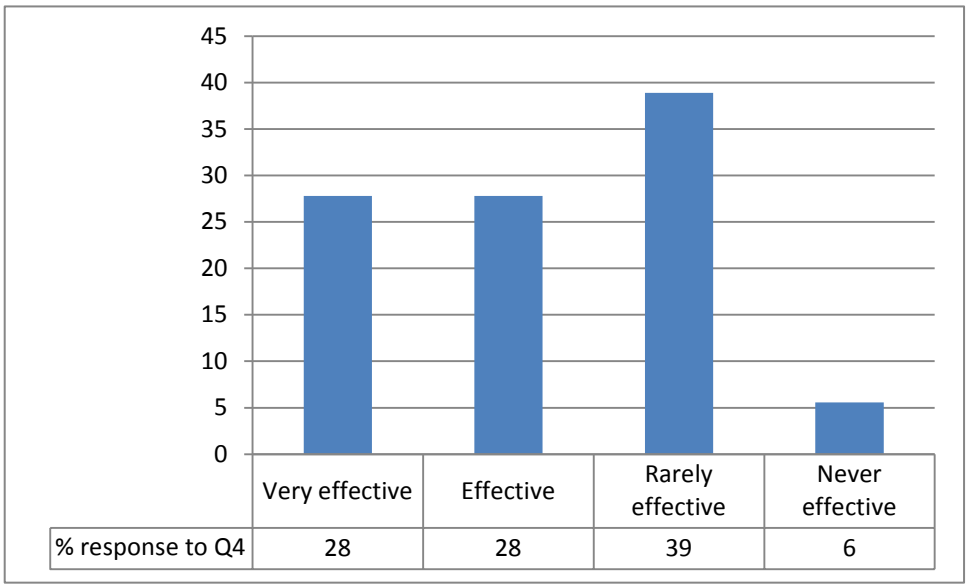
> “I personally found reflective writing to be a very powerful tool for analysing the strengths and weaknesses of my own practice. Interestingly I began the course very sceptical of how effective this would be. Often I found the writing to gain more pertinence post the time of writing as the course progressed.”
>
> (Student G)

What was evident in the textual responses and in the distribution of ratings was a qualification of the affirmation of efficacy due to the constraints in word count and the pre-determined foci. Responses included: “it is not true reflective writing”, “too prescriptive”, “like writing a concise essay as opposed to my own thoughts”, “writing to specifics”, “artificially academic and deliberately non-reflective”.

Three students commented on the challenge of written communication of the reflections, observing "[I] struggle with conveying ideas in writing" and "I found it difficult to put my thoughts onto paper [...] more of a diary style reflection would have been more useful for me". Student E stated "I felt I could reflect rather well but putting it into writing rather challenging".

Figure 4.3 Distribution of ratings for question 4.

Q4. In your opinion, how effective is reflective writing as a tool for communicating your personal reflections on practice?



4.3.2 Reflective writing

The extracts of students' reflective writing were analysed using the W&M rubric. The rubric proposes four levels of reflection: 'Routine', 'Technical', 'Dialogic' and 'Transformative'; and considers three phases of practice within which reflection is located: 'Focus', 'Inquiry' and 'Change'. Annotated extracts for case study students are provided in Appendix 13.

4.3.3 Student attainment (professional and academic)

Attainment was analysed by consideration of improvement in academic attainment in the reflective writing assignment and in professional performance, from the end of teaching placement one to the end of teaching placement two (graduation). Mean attainment in professional performance was calculated as the mean of the grades awarded against each of the professional performance 'focus areas' where: 1 indicates 'outstanding'; 2 indicates 'good'; 3 indicates 'satisfactory'; and 4 indicates 'unsatisfactory'. Hence the improvement was calculated as the difference between the mean grade at the end of placement one

(PRP2) and at the end of placement two (PRP4). A positive value is indicated by a lower numerical value at PRP4 than that at PRP2.

Table 4.2 Attainment of students A-G

For the attainment of all sample students see Appendix 14

ID	Student	RW1 (assessed at level 6)	RW2 (assessed at level 7)	RW2 referral	PRP 2 Mean	PRP 4 Mean	Improvement PRP2 to PRP4
25	A	D	D-(6)	D-(7)	2.5	1.9	0.6
49	B	C-	D+		2.5	1.5	1
3	C	D	D		2.3	1.7	0.6
39	D	C-	C+		2.7	1.7	1
50	E	C+	C-		2.8	2.7	0.1
36	F	B+	B+		2.4	1.4	1
4	G	C	C		2.4	1	1.4

Key

RW1	The grade awarded for the reflective writing assignment at the end of teaching placement 1
RW2	The grade awarded for the reflective writing assignment at the end of course (from which the sample was extracted for analysis)
(6)	Grade awarded at FHEQ level 6
(7)	Grade awarded at FHEQ level 7 (or Masters level)
Referral	The opportunity to submit a second attempt if unsuccessful in the first attempt
PRP Mean	The mean grade awarded against the professional performance 'focus areas' where: 1 indicates 'outstanding' 2 indicates 'good' 3 indicates 'satisfactory' 4 indicates 'unsatisfactory'
PRP	The assessment of professional performance (Profile Review Point).
PRP2	takes place at end of teaching placement 1
PRP4	takes place at end of teaching placement 2

4.3.4 Lesson evaluation documents

The lesson evaluation, written by the student teacher following a teaching experience, has the potential to offer a different perspective on the skill of the student, as it is written outside the context of a formal assessment. It was proposed to undertake an analysis of student lesson evaluations employing the W&M rubric. In seeking to extract the documents, however, it emerged that there were insufficient examples of lesson evaluation incorporated within the portfolios. From informal conversations with current students, it is noted that the 'low stakes' nature of lesson evaluations often results in minimal engagement with structured written evaluation. The preferred method of post-episode analysis and reflection is informal notes jotted on the original lesson plan document. Consequently there was no analysis of this informal reflection process within the pilot study.

4.3.5 Case studies

The findings for each identified case student are collated below.

4.3.5.1 Student A

A's reflective writing contains indicators of a shift towards 'dialogic' reflection at the point of identifying 'foci' for reflection. This is not sustained in the 'inquiry' and 'change' phases of the written reflection, which include indicators of 'routine' and 'technical' reflection. The indicators of 'routine' reflection have been judged to be structural, i.e. embedded within the organisational approach used for the reflective writing task. This may be indicative of the author's belief that the assessor will require documentary evidence of progress which is endorsed by an authoritative other. Questions arising were:

Was the author undergoing changing beliefs / attitudes at the point of writing?

What were the external influences affecting the beliefs / attitudes / expectations in relation to the assessment task at the point of writing? e.g. Was there an authoritative figure with 'routine' expectations influencing the author's level of reflection?

Student A had rated the 'focused reflection on incidents from teaching practice', 'established theories about how children and young people learn', 'reading about research into learning and teaching' and 'undertaking your own research into learning and teaching' as having little influence on personal understanding of teaching. The positive influences were considered to be 'ideas from tutors' and, most strongly, 'mentors' with 'systematic evaluation of teaching'. The suggestion is that 'A' prioritised professional development and this was supported in the reflective writing extract, which showed early signs of adopting a 'dialogic' attitude to reflection in the focus stage, and in the responses to question three, which identified the triggers for reflection as being practice based. Whilst 'A''s level of academic achievement

was constant, progress against the professional performance standards was 0.6 of a grade (close to the population mean of 0.7) and 'A' was graded as 'good'. 'A' commented on the use of reflective writing as evidence of progress as a teacher as follows: "On reflection, much prefer the use of reflective writing to 3 pieces of evidence - allows proper analysis - makes you consider changes you can implement to improve"; a comment which may, in itself, be categorised as dialogic and possibly transformative. The conclusion drawn is that 'A' was experiencing either change in perspective or realignment with a pre-existing but concealed perspective, at a point in time when the pressures associated with assessment criteria and professional performance had been withdrawn. It is suggested that the very act of engaging with the questionnaire had triggered authentic reflection, revealing reflective skill or attitude which was not evident in the assessment work but had contributed to professional progress.

4.3.5.2 Student C

In the reflective writing extract, 'C' demonstrated the characteristics of 'routine' reflection in all phases, with some evidence that there may be a shift to 'technical' reflection in the 'inquiry' and ''change' phases, although this was implied rather than fully developed. 'C' identified no connection between the reflective writing assignment and progress as a teacher and had expressed a view that the constraints of the assignment prevented effective use of the assignment as evidence of progress. This view is supported by the attainment outcomes, insofar as progress was made in both academic and professional attainment.

4.3.5.3 Student E

Evidence of 'routine' reflection pervades the reflective writing extract, with statements such as: "I feel I am not too far away from being an outstanding 'all round' teacher" indicating that "primary concerns may include […] recognition for personal success" (Ward and McCotter, 2004) and "Unfortunately, in this profession there is no 'one size fits all' and so one strategy may work for one child but not the other" (Student E) satisfying the "definitive and generalised" (*ibid*.) characteristic explicitly. In contrast, reflections relating to the 'change' phase suggest a shift into the 'technical' characteristics. The categorisation is facilitated by the focus on specific episodes from practice e.g. "I have also reflected on why, for example, pupils were not taking me seriously during one lesson. This was because I did not have a consistent approach to behaviour management". Although there is an implication of openness to change in behaviour (by adopting a consistent approach), there is no evidence of a change in perspective. Rather, the sense is that the need for consistency was already understood. In responding to the questionnaire, 'E' had claimed affective reflective skills and difficulty in articulating reflections in written form. 'E' was one of only four of the sample of

eighteen who achieved less than 0.5 grades progress in professional attainment between placements one and two and was graded as ‘satisfactory’.

4.3.5.4 Student G

The reflective writing extract contains indicators of ‘dialogic’ reflection with evidence of a shift towards ‘transformative’ characteristics. There is little discussion of the ‘focus’ phase, although the final paragraph is interpreted as evidence of a ‘transformative’ attitude. This paragraph is a digression into the natural reflections of the author, unconstrained by the assessment requirements. This interpretation is supported by the level of reflection evidenced in ‘G’’s responses to the questionnaire. The view of reflective writing was “It is only as effective as the student wishes it to be. If reflections are drawn genuinely from class/school/seminar experiences then it is very powerful.” This student held the view that reflection was triggered by all the suggested prompts except the QTS standards, perhaps indicating an attitude of meaningful and purposeful reflection and a position on Loughran’s (2002) spectrum of reflective practice which is deliberate, planned, active consideration of experience. ‘G’ was one of four sample students who achieved more than 1.0 grades progress against the professional standards, achieving a final grade as ‘outstanding’.

4.4 Conclusions from the pilot study

4.4.1 The relationship between the assessment design, student learning and professional progress

The pilot study led to a proposal that, in agreement with Hussey and Smith (2003), the value of reflection for improving practice can be constrained by the prescriptive nature of the prompts for reflection, the word limit, the alignment with the professional standards and the demands of the assessment criteria. Some participants did not see value in the reflective writing assignment as a tool for improving practice, judging it as contrived and expressing dissatisfaction with the constraints imposed. There was, however, a view that it supported them in thinking analytically about the intent and meaning of the professional (QTS) standards. It could be argued, then, that the tool develops students’ skills of critical analysis and that this, in turn, leads to improvements in practice. This proposal is borne out by the apparent relationship between student attainment in the academic assignments and achievement against the professional standards. However, there is no evidence to suggest that the connection is an effect, attributable to engagement with the assessment tool during the course. In fact, there is some anecdotal evidence that the skills of critical analysis were pre-course attributes of the most successful students. This attribute is one which Dewey (1933) describes as ‘aptitude’. In addition, it is noted that the assessment criteria and,

through them, the feedforward effect of formative assessment comments, place greater emphasis on development of academic writing skills than on reflection. This suggests a misalignment between these criteria and the intended learning outcomes of the unit. The correlation is also evident in those students who were assessed to be least effective in practice, in that they also tended to be less successful in the reflective writing assignments and to acknowledge least value in undertaking the reflective writing tasks. A key observation of these students' performance is the lower levels of attainment in both professional and academic aspects during the year. The assertion that the assessment strategy has the potential to penalise student teachers who are effective practitioners with underdeveloped skills of academic writing is not supported in the findings of the pilot study. The conclusions from the pilot are summarised as follows:

- students' responses to the reflective writing tasks appear to be constrained by the design of the assignment task;
- the assessment criteria appear to promote a formulaic approach in terms of both structure and content;
- confidence with academic writing appears to influence perceptions of the value of the task for improving practice.

4.4.2 The research methods

The use of student teacher attainment data as an indicator of professional competence facilitated the profiling of participants in terms of progress. However, the factors influencing progress are complex and are not controlled within the programme. Examples include the change of placement and mentor, the increase in responsibility for planning and leading teaching and the increase in demand from academic assignments. There was a need to review the use of a 'measure of progress' in light of these observations.

The questionnaire was effective in eliciting student teacher perceptions of the role of reflection in developing practice and of the influence of the reflective writing assessment task. The free text comment boxes were frequently used by respondents and were helpful in providing further insights into the unconstrained reflections of the participants.

Whilst the written evaluation of lessons would have provided examples of reflective writing unconstrained by assessment requirements, the availability of these documents was unreliable. Hence the sole source of student reflective writing was the assignment submission extracts. These extracts were consistently available and provided an important link between the academic attainment grade and the evidence of reflection, thus supporting

the search for evidence of any relationship between assignment activity and skills of reflection. Hence it was concluded that there is value in pursuing the connection between reflection (as evidenced in reflective writing), attainment in the assignment and effective practice (as evidenced by attainment in the professional standards).

The W&M rubric provided a set of descriptors which characterised reflection within the medium of reflective writing. It enabled me to identify reflective thinking within both the assignment extracts and the questionnaire responses. The use of the rubric resulted in my consideration of the intended meaning of some terms within the descriptors and a proposal to modify some terms in order to assure consistency in the application of the descriptors to extracts of reflective writing.

4.5 The contribution of the findings to practice

The pilot study was concerned with the extent to which one particular course of teacher education was successful in designing and implementing an assessment strategy which promoted and recognised improvement in individual student teacher professional practice. Was the attempt to integrate academic and professional development in a single assessment tool effective in prompting purposeful reflection? Did that reflection lead to improved teaching? Were students successful in communicating the process and the impact in written form?

Emerging from the outcomes of the pilot was a proposal that the alignment sought is problematic. Barriers identified included student pre-conceptions of the purposes of assessment and attempts, both in design and implementation of the assignment, to assure equity of opportunity, objectivity, transparency and consistency in developing assessment tasks and success criteria. To what extent did the challenge to student expectations interrupt the learning trajectory which was the intended outcome of the implementation of a strategy of constructive alignment of assessment? Were there other external factors at play?

The conclusion of the pilot study, then, was that the assessment tool in place in the, then, current reflective practice unit may be effective in developing academic skills of reflective writing and critical analysis, but that there was little evidence to suggest that the professional practices of the novice teachers were improved as a result of engaging with the tasks. In addition, there was some evidence to suggest that the current tasks were perceived to present a barrier to reflection and could, therefore, reinforce the notion of a theory-practice divide. Sharing the findings with the unit leader resulted in a proposal to modify the design of

the assessment task in order to promote self-selection of foci for reflection, thereby reducing the barriers identified.

4.5.1 Aspects of the assessment task which were revised in light of the findings

The features of the reflective writing unit and assignment at that point which were reviewed following the pilot study were as follows:

4.5.1.1 Foci for reflection

The foci for, and timing of, reflection were directed within the task. This was revised as it appeared to contradict what was held to be known about effective reflection. The rationale was that, in order for reflection to improve practice, there needs to be intrinsic motivation or alertness i.e. the actor becomes aware of, and interested in, particular aspects of an episode, triggering a desire for change, response or solution (Schon, 1991; Mason, 2004). Removal of control by imposing the focus as a requirement of the assessment, or by constraining the time within which the reflections may be enacted, had the potential to introduce a distraction from meaningful reflection, block purposeful problem-solving, creativity or aspiration and implicitly prohibit autonomy. In some cases this may lead to passive compliance ('jumping through hoops') rather than the intended active self-discovery and development. This observation is supported by Moon (2006) who asserts that "learners will tend to produce in journals what they think any assessor wants to see" (p.120).

4.5.1.2 Professional standards

The assessment task made an explicit connection made between the prompt for reflective writing and the professional performance (QTS) standards. This was a genuine and principled strategy to shift novice teachers away from superficial claims of having met the requirements of the standards and towards a critical synthesis of theoretical- and practice-informed perspectives. However, the complexity of 'serving two masters' appeared to lead to anxiety about whether either could be satisfied. As a consequence, critical reflection was replaced by systematic articulation of having satisfied performance descriptors coupled with algorithmic inclusion of reference to related reading and documentary evidence. Such a procedural approach would be indicative of, at best, 'technical' reflection as defined by the W&M rubric. Hence it could be inferred that the design promoted 'technical', rather than 'dialogic' or 'transformative' focus.

4.5.1.3 Teaching reflective skills

The support to develop the required professional skills had been framed by a structured cycle of 'attempt and improve' using formative feedback from tutors against qualitative

descriptors. The focus of teaching on this unit was on the development of tangible professional skills and qualities. The expectation of systematic self-evaluation was clearly stated. However, there had been little teaching or explicit modelling of the skill of, or strategies for, reflection within the existing unit. The implicit message was that reflection is intuitive, possibly passive, rather than a learned skillset which demands deliberate action. Drawing on the proposals of Loughran (2002) and Mason (2004), it was necessary to consider whether this approach might impede progress, for example, of a novice teacher who has difficulty with critical analysis of her / his classroom experience and, as a result, depends on colleagues to identify developmental needs.

4.5.2 Changes to the course design following the pilot study

In response to external influences and marketing requirements, the PGCE course review and restructure which took place at the conclusion of the pilot study implemented a segregation of performance outcomes from the development of reflective practice. By developing '*The Reflective Teacher*' as a discrete unit (or module), the learning outcomes explicitly addressed the skills of reflective practice and the teaching strategy set out a progressive development of reflective skills, although this would retain the location within the context of practice. Whilst academic writing remained a focus for development, the weighting within the assessment criteria was reduced in favour of indicators of critical reflection.

The review, then, provided an opportunity to revise the unit assessment strategy to promote the self-selection of prompts for reflection. However, in order to support novice teachers in preparing for employment in a profession which is accountable to national government agendas, directed themes for reflection were retained. Loughran (2002:35) warns against the dangers of "routinising reflection" and asserts the need for "significance and purpose". This suggests that, for reflection to improve practice (in this case, teaching and, as a consequence, learning) it must be authentic and meaningful. By situating the reflections within the context of the national agenda for education, it was intended that students would be able to recognise the relevance of the reflection activity for their continuing professional development. There remained some tension then arising from the responsibility of the course to steer the development of the student in directions which would lead to satisfaction of the professional requirements.

4.6 Feedback from colleagues

In the review of the pilot study report by colleagues, observations were shared and questions were posed, both of which contributed to the subsequent shaping of the main study. The

feedback had significant influence, causing me to reflect not only on the practice which was the focus of the study, but also on my own preconceptions and assumptions. It became clear, at this point, that I was living through a cycle of reflective activity which closely modelled the reflective behaviour which was the aspiration for students on the course.

4.6.1 Knowledge of how the students view reflection / reflective practice

One of the questions posed was "Do you know how the students view reflection / reflective practice"?[4] The question highlighted the fact that there was an assumption implicit in the research tools and in the report that the students' view of reflection would be the same as my own. This observation caused me to recognise a tendency, which I now see as positivist, to expect that there is precisely one meaning of reflection and the understanding of that meaning is shared by all who use the term. There is a risk that this statement has over-simplified the issue and it is, therefore, important to note that this was a latent belief rather than one which could have been articulated at the time of undertaking the pilot study. However, having recognised it, it would need to be addressed in the main study.

4.6.2 Implications of using the Ward and McCotter rubric

The feedback from the pilot study also drew my attention to a potential challenge to the trustworthiness of the findings arising from the use of the W&M rubric for analysis of students' reflective writing. The observation was made that consideration needed to be given to the differences between the W&M rubric and the assessment framework given to the students in the handbook for the course and what implications those differences might have for the conclusions drawn. The response to this observation, a systematic comparison of the two frameworks, is set out in Section 4.8.3. The observation also resulted in a focused reflection on the place of the assessment criteria on students' engagement with the assessment task in the main study.

4.7 Evaluation of the pilot study

The aims of the study, as set out at the beginning of the pilot study, were to review the principles of constructive alignment and to gain an insight into the capacity of the assessment task to contribute to learning and to developing practice as teachers. As a pilot study, it provided the opportunity to share the proposed study with colleagues, to test the instruments to ensure that they provide relevant and informative data and to scope the significance of the work and the immediacy of the implications for developing practice.

[4] EdD Assessment feedback. Pilot Study report.

4.7.1 The strengths and weaknesses of the pilot study

The review of literature provided a basis for the work which would follow, offering confirmation that principles of constructive alignment of assessment introduced by Biggs (1996) have continued to influence the design of courses and are endorsed by recent research in contexts which are similar to that of this research. There was, therefore, a basis in the work of more experienced others for the evaluation of, and proposed changes to, practice.

Sharing the study with colleagues had two distinct outcomes which would result in improvements to the main study. The first of these outcomes was the influence on the course design which took place as a consequence of sharing the findings of the research with the course team. The findings of the pilot study were recognised as having sufficient credence to initiate an immediate change to practice in the assessment design. Hence it was claimed that one strength of the pilot study was the immediate impact on practice which would contribute to improved understanding about teaching. The second outcome was the increase in my self-awareness as I was caused to scrutinise my own assumptions and pre-conceptions. This resulted in improvements to the transparency and the trustworthiness of the work and, again, led to a change in practice of the researcher as a teacher. This type of research is supported by Oancea and Furlong (2007), who propose a 'domain' of "*phronetic* engagement of research and practice" in which research "move[s] closer to practice by focusing on the enhancement of (ethically) authentic action, rather than on the accumulation of (theoretical) knowledge" (p.131).

The research instruments, i.e. the W&M rubric and the questionnaire, were judged to have been effective in achieving the purposes for which they were designed. There were, however, dilemmas which arose in the implementation of the W&M rubric and these resulted in refinements to the approach, firstly through an improved review of the literature relating to analysis of reflective writing and secondly through an attempt to articulate and clarify the intentions of the language used in the descriptors within the rubric. Chapter 5 addresses these two points. The questionnaire was also judged to have been effective in eliciting the students' perspectives and the intended data. However, the feedback about students' understanding of reflection caused me to revise the questions and seek improved information about that aspect of students' thinking.

4.8 The implications for the main study

4.8.1 The research questions

The research questions which shaped the pilot study were:

How can I be confident that student engagement with the reflective writing assignment contributes to their development as reflective teachers? What do student teachers need to learn in order to improve their practice? In what ways can that learning be initiated and sustained through an assessment strategy? In what ways can that learning be demonstrated? In what ways can that learning be measured?

From the findings of the pilot and reflection on the findings and the feedback from colleagues, there were a number of factors which would be taken into account in reviewing and improving the research questions. Those factors were student concerns about the constraints of the assignment, student and mentor concerns about issues arising due to weaknesses in capacity to communicate effectively in writing and the implications of the two previous points that reflective activity is not always represented in the reflective writing tasks.

The research questions for the main study would be:

What are the factors which influence student teacher engagement with the reflective writing tasks which are compulsory elements of their teacher education programme?

To what extent does a student teacher's reflective writing portray her/his reflective practice?

Is there a connection between a student teacher's reflective writing and her/his professional achievement?

In further discussion with colleagues about these questions, assumptions about the meaning of reflection and the place of reflection in teacher education became evident. Hence two further questions were added.

What is known about reflection?

What is known about the place that reflection holds in developing teacher practice?

Section 4.8.2 explains the way in which the change in questions contributed to the development of a revised approach to research.

4.8.2 The approach to research

Personal reflection and discussion with colleagues about the influence of the pilot study on practice and the indicators of the importance of the findings for the course team led to a reconceptualisation of the pilot study, reframing it as the first stage of a longer term project, rather than the separately reported field test which had been planned. The main study, then, would be a responsive development and continuation of the work in order to develop further

understanding of the influence which the course design appeared to have had and of the students' attitudes to assessment pursuing the research. As Norton (2009) has argued, "pedagogical action research does not have to follow traditional models of experimental design; indeed there is quite a strong case for why it should not" (p.63).

What had also become apparent was the need to gain greater insight into the approaches used in other institutions. The main study would, therefore, be viewed as the second in a sequence of cycles of action research, with the intention of ensuring that this aspect of practice would have a secure foundation in an evidence base. It was acknowledged that the work in the first two cycles (the pilot study and main study) would be constrained by the focus on the isolated case of a single course in a single institution, and an intention to seek opportunities to explore the equivalent work of other institutions would be a likely focus for me following the completion of cycle two. However, in the nature of what would now be an action research study, it was also possible that there would be further cycles required within the local practices.

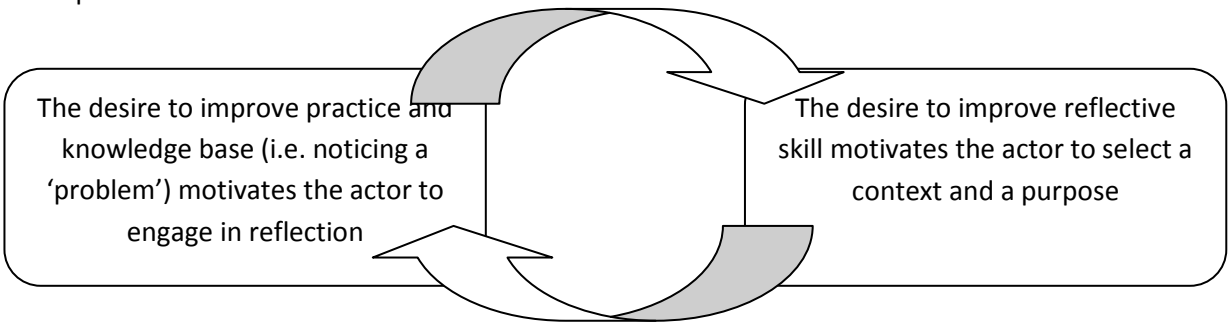
4.8.3 Data collection and analysis for the main study

In response to the findings from, and evaluation of, the pilot study, a number of modifications were made to the data collection and analysis methods for the main study. Personal reflections, discourse and subsequent research around the choice of framework for analysis of the reflective writing resulted in modifications to the W&M rubric. The documentary analysis of student reflective writing to locate evidence of reflective practice would be retained and would be supplemented by an analysis of the assessment criteria for the potential of the criteria to influence reflective practice. The comparative analysis of grades achieved in reflective writing and practice-based assessment would be used to locate evidence of any connection between reflective writing and professional achievement. The questionnaire to students would be retained but modified to improve the capacity to discover perceptions of the value and reliability of the reflective writing assignment as evidence of professional development. It was proposed to define particular cases for analysis which would use academic discipline, as a broad indicator of confidence with academic writing. In addition, a personal reflective log would be introduced to acknowledge and record my own reflective practice and to assure the trustworthiness of the work. The log would be used as a tool for gaining a personal perspective on reflection and reflective writing, as a mechanism for documenting the emerging and evolving interpretation of findings and to promote habits of critical reflectivity in my own study.

The main study would refine the focus on constructive alignment, seeking to evaluate the extent to which the reflective writing assessment tool can be considered to have an influential relationship with the level of reflective skill. The analysis of participant beliefs and perceptions had prompted a further question about the extent to which change in beliefs and/or reflective skills had been effected through engagement with the assessment tool. Loughran (*ibid.*, p.84) proposes that the connection between reflection and practice is two-way as shown in Figure 4.4. Eraut (1994:10), however, notes that learning "may not contribute [...] to their general professional knowledge base unless the case is regarded as special rather than routine and time is set aside to deliberate upon its significance." Hence the data collection methods needed to explore the extent to which student teachers and others involved believe that reflection improves practice, before exploring whether the specific assessment tool has actually influenced or contributed to a cycle of reflection improving practice and also to explore whether the identification of issues arising in practice facilitates the development of reflective skill.

Figure 4.4 Connecting reflection and practice

Image developed from Loughran's (2002, p.84) proposal of the interconnection between reflection and practice



The W&M rubric had been helpful to analyse the characteristics exhibited through reflective writing. However, the specificity of the framework to written reflection needed to be taken into account. There was a need to develop an analytical model which distinguishes and isolates skills of reflection from skills of academic writing. The use of the W&M rubric also disregarded the effect of student 'hoop-jumping' to meet the assessment criteria associated with the task. Hence the main study would consider the common and distinct features of the two frameworks.

In addition, the descriptors in the 'change' row implied that change is appropriate and/or necessary. It was proposed to adapt the descriptors to take account of the fact that the existing practice may have been shown to be effective such that change would be inappropriate.

The questionnaires which were used in the pilot study would be modified to explore, first, the extent to which the participant understands and is able to use reflection as a tool for improving practice before evaluating the influence of the reflective writing tasks on reflection and on practice. Modification to the questionnaire included “observation of other teachers” as a response option for question three, a shift of emphasis on the focus of question three from ‘reflective writing’ to ‘reflection’ and the use of ranking for responses to question three to offer further information about relative importance of the various prompts for reflection.

In order to address ethical considerations in relation to the power relationship between tutor/researcher and student/participant, the questionnaires would be distributed whilst students are in university for the examination board, with the invitation to complete them after student graduation. The scope of the questionnaires would be broadened to consider the experience of all PGCE Secondary students 2013-14.

4.9 Next steps

4.9.1 The action research approach

As discussed in Section 4.8.2, the approach to research evolved to become an action research study in which the pilot study would assume the status of the first cycle of research. Hence reflection on the findings from the pilot study had informed changes to practice and those changes would form the focus of enquiry in the main study, thereby locating the main study as cycle two and indicating possible directions for subsequent cycles.

4.9.2 The framework for analysis

Further secondary research would be undertaken to ensure that the framework which had been selected for cycle one was justifiable by reference to a broad research base. In addition the cross-referencing analysis of the selected framework with the assessment criteria would inform consideration both of the influences on students and of the reliability of the methods for analysis. The review of literature and the development of the framework are set out in Chapter 5.

4.9.3 The theoretical model

Focussed attention would be paid to the researcher perspective and to ensuring transparency for the reader by setting out the theoretical underpinnings for the work to be undertaken in cycle two. The theoretical perspective is set out in Chapter 6.

5. FRAMEWORKS AND TAXONOMIES FOR REFLECTIVE WRITING

The aim of this chapter is to explain how a rubric has been developed which supports the location of indicators of reflective activity within examples of student writing. The baseline requirement was for a framework of characteristics of reflection which may be exhibited through the medium of the prescribed writing task. The chapter recounts the way in which an initial rubric was adopted and subsequently developed to facilitate the investigation of any possible causal relationship between reflection and professional learning. In doing so, the chapter sets out the rationale for the initial selection of the Ward and McCotter rubric for the pilot study (cycle one) and the continued adoption and the adaptation of the rubric for the main study (cycle two). The chapter is organised by time sequence, offering an open and honest account of the reflexive development of the framework as this study has progressed.

5.1 Definitions

The word ‘framework’ has been used to refer to an organisational tool which provides structure and categorisation, in much the same way as a physical framework provides sections, edges, boundary walls and connections. In the context of education, a conceptual framework might summarise the attributes of concepts in order to understand their distinctiveness and to identify connections between them. For example, an ontological framework seeks to classify perceptions of reality.

‘Taxonomy’ is commonly used to refer to a system of classification. Popular examples in the field of education are Bloom’s Taxonomy which proposes a classification system for learning objectives and SOLO Taxonomy (Biggs, 2007:38-43) which offers a classification of observed learning outcomes. Taxonomies may be hierarchical or ordered and, thereby, used to locate current attributes and select targets for future development. In both Bloom’s and the SOLO taxonomies the various categories are offered as levels which may be demonstrated and progressively achieved or developed. Hence one might describe an assessment criteria rubric, such as the one analysed in this study, as a taxonomy of characteristics of a reflective writing task. Raiker (2010:45) notes the way in which the presentation of a taxonomy in two-dimensional form can imply an unintended hierarchy. Hence it may be necessary to support any such tool with a clear articulation of where there are, or are not, intended levels of progression.

A rubric, in educational contexts, has been used to represent “an evaluation tool or set of guidelines used to promote the consistent application of learning expectations, learning objectives, or learning standards in the classroom, or to measure their attainment against a consistent set of criteria” (Edglossary, 2013). Ward and McCotter (2004:249) claim that their rubric “achieves [the] goal of making the qualities of reflection more visible and valued while honouring the richness and depth of meaningful reflection on practice”. The view is, then, that the purpose of the rubric is to clarify the purpose and intended outcomes of the task and to make explicit the criteria by which the outputs will be judged. Hence the rubric has characteristics of both frameworks and taxonomies, in that it must summarise characteristics and conceptual attributes, identify connections between them and the distinctive features which separate them and, in this case, specify those characteristics and attributes which define levels of reflective activity communicated in writing.

5.2 The rationale for initial selection of the Ward and McCotter rubric

In searching and reviewing the literature on reflection in initial teacher education (see Chapter 2), two key features were noted: firstly the tendency to discuss reflection and reflective writing interchangeably, as if to infer that they are equivalent, and secondly the shortage of research with a specific focus on reflective writing.

The work by Ward and McCotter (2004) was distinctive in that, although they also refer to “reflection” (p.246), undistinguished from reflective writing, their synthesis of research about reflection in initial teacher education is used to develop a rubric for the evaluation of evidence of reflection in “reflective text along with lesson plans and samples of student work” (p.247). Hence there was common ground in terms of the concerns about practice and the nature of the student work to be analysed was similar to that in my own study. Because the framework was developed through a grounded approach from a synthesis of data from their practice with literature about reflection, it was possible to consider the evidence which had been published, to form a view about the reliability of the development of the descriptors from the evidence and to judge whether there was transferability to this particular context. The Ward and McCotter rubric was adopted for the pilot study on this basis.

5.3 Requirements for the continued adoption of the Ward and McCotter rubric

In my evaluation of the findings from the pilot study (cycle one) there was an aspect of the rubric which I had been caused to question (See Section 4.7.1). In order to explore that aspect further and ‘consult’ with other authorities, it was concluded that there was a need to

firstly locate other work which had reviewed the Ward and McCotter rubric and, secondly, test the rubric by reference to authorities who have been influential in developing understanding of reflection and reflective writing. A third intention was to either retain, replace or modify the rubric informed by the literature. The starting point was a systematic search for citations of the Ward and McCotter (2004) work using Scopus[5].

5.4 Citations of the Ward and McCotter rubric

A Scopus search revealed that the work by Ward and McCotter has been cited sixty-two times since its publication in 2004. A systematic analysis of the works in which citations occurred (Appendix 15) showed that the number of citations had remained at seven to ten per year between 2008 and 2013, including one book chapter and three conference papers, and that citing authors were located in USA (fourteen), Spain (eight), United Kingdom (seven), Netherlands (six) and Australia (five).

NVIVO[6] software was used to interrogate and code the abstracts, and concepts related to this study were noted (Appendix 16). Twenty-four of the sources made direct reference to analysis of reflection or reflective writing within the abstracts and these were initially selected as potentially offering a means of validation of the framework. From the initial twenty-four, five were rejected for the following reasons: they were linked papers drawn from a single study, the emphasis was on the technology which had been employed to facilitate reflection, there was a focus on the socialisation of pre-service teachers rather than on their wider professional development, or the analysis looked at the reflections of teacher educators, not pre-service teachers. It was concluded from the reading of the nineteen remaining papers that there is ongoing application of the Ward and McCotter rubric for the analysis of reflective writing sufficient to support the continued adoption of the tool. In particular, the works of Lee (2005), Fund, Court and Kramarski (2002) and Luttenberg and Bergen (2008) looked in detail at work done over time to classify aspects and levels of reflection and to develop frameworks or typologies for the assessment of reflective writing. In the section which follows, these have been explored alongside seminal works on reflection in professional development, in order to clarify the connection between reflective writing and reflective practice.

[5] Scopus is an abstract and citation database of peer-reviewed literature available at www.scopus.com
[6] NVIVO is qualitative analysis software available at http://www.qsrinternational.com/products_nvivo.aspx

5.5 A brief review of literature to inform a rubric for reflective writing

The development of the framework begins with a systematic summarisation of the characteristics of reflection proposed by Dewey, Schön, Eraut and Hatton and Smith. More recent work is subsequently examined in order to gain insight into the relevance of these characteristics in the current educational context. The framework is then developed into a rubric by integrating the key characteristics with the existing taxonomy (or rubric) offered by Ward and McCotter. As I noted earlier, the aim of this section is to affirm my adoption of the rubric by deference to the underpinning theoretical perspective.

5.5.1 Dewey

Within Dewey's (1910, 1933) work there is common use of collections of aspects or classifications which have acted as a 'hook' for attention and recall of the ideas presented. Two such trios which have relevance for this study are the "attitudes for purposeful reflection": responsibility, open-mindedness and wholeheartedness (1933, pp.29-33) and "resources for learning": curiosity, suggestion and orderliness. Dewey (1933) asserts processes of sifting evidence and selecting applicable rules as characteristics of judgement making, a constituent element of reflective activity (pp. 119-126) and considers insight and discernment. Dewey presents reflective activity as linear, with clearly defined start (pre-reflective) and end (post-reflective) points, where "the two limits of every unit of thinking are a perplexed, troubled or confused situation at the beginning and a cleared-up, unified, resolved situation at the close" (p.87). This defining characteristic of Dewey's theories about reflective thinking is significant because it sets apart reflective thinking and reflective writing, as will be seen later.

Dewey sets out five "states of thinking" or "aspects of reflective thought" as phases within a journey, although he does make it clear that the sequence of these phases is not fixed (p.93), and proposes a possible sixth phase, which anticipates "possible future experience" (p.95). The sixth phase is likened to the formation of a theory and it is this phase which is, perhaps, the most informative in seeking a perspective on the reflective activity which takes place in the authoring of reflective writing. He describes a person who

> "goes over the former case, comparing it bit by bit with the present, to see how far the cases are alike or unlike. Examination of the past may be the chief and decisive factor in thought."

He highlights the importance of testing hypotheses; "reviewing previous facts and ideas, relating them to one another on a new basis"; and the "influence on the attitude of the actor".

Dewey's five phases are:

- suggestion – relating the 'problem' to previous experiences
- intellectualisation – the encapsulation or defining of the 'problem' (he notes that this is a shift from an affective response to a rational one)
- hypothesis – the intuitively formed proposal for a solution or way forward
- reasoning – the deliberate and systematic exploration of the proposed solution by reference to other knowledge "the stretch of links brought to light depends […] upon the store of knowledge that the mind is already in possession of" (p.91)
- testing – the enacting of the proposed solution and the systematic observation of impact. The outcomes of testing could be the revelation of new characteristics of the 'problem'.

Dewey is also helpful in the consideration of indicators of barriers to reflection. He notes that

> "blind observance of rule and routine [...] Even that which he has once learned and applied with some interest and intelligence tends to become more and more mechanical, and its application more and more an unintelligent and unemotional procedure."
>
> (p.201)

5.5.2 Schön

Schön (1983) is concerned predominantly with concepts of knowledge, as discussed in Chapter 2. He shows how the way in which the nature of knowledge is understood and defined influences attitudes, perspectives and values. It has a bearing on the way in which teaching is structured and programmes of education and/or training are designed and shapes our perception of evidence of learning. This is particularly true, he argues, when the learning under consideration is concerned with performance of professional practice. One of the key issues underpinning this view is the observation that often experts in practice are unable to articulate the nature or characteristics of the expertise which is highlighted, with descriptors such as 'tacit', 'intuitive', 'art' and 'skill' signalling a type of knowledge which is somehow separate and distinct in nature from that which is learned in educational institutions. What he proposes, though, is that systematic review of particular episodes of practice (this might be termed case-by-case review) reveals specific examples of expert practice based knowledge and may result in groups of cases with common features, which he refers to as "frames". His model of reflection-in-action is offered as the process by which practitioners develop expertise (i.e. they learn). He describes

> "a frame experiment [in which] the inquirer is willing to step into the problematic situation, to impose a frame on it, to follow the implications of the discipline thus established, and yet remain open to the situation's back-talk. Reflecting on the surprising consequences of his efforts to shape the situation in conformity with his initial chosen frame, the inquirer frames new questions with new ends in view." (1983, p.269)

Thus Schön offers the following features of reflection which contribute to the development of practice:

- A willingness to define an aspect of own practice as problematic;
- Identification of a frame which characterises the type of problem;
- Selection from responses to similar problems located within the selected frame;
- Alertness to, and consideration of, the consequences of the selected response; and
- Reframing to benefit from the increase to experience.

5.5.3 Eraut

Eraut's work has an underpinning focus on professional learning. Hence it is not immediately apparent that he has a contribution to make to the development of a framework for reflective writing. However, a perpetual theme through his work, emerging in his 1994 book, re-occurring in his 2005 presentation at the British Educational Research Association (BERA) conference (Eraut and Steadman, 2005) and still present in his 2010 book chapter (Billett, 2010), is the notion of theorising and its manifestation and representation in different contexts (specifically in the contrasting contexts of academic and workplace learning). Theorising, he says, is "to interpret, explain or judge intentions, actions and experiences" (Eraut, 1994:60). Building on a typology of modes of knowledge developed by Broudy, Smith and Burnett (1964), he argues that practice-based learning demands applicative, interpretive or associative modes of knowledge use and that such knowledge use is intrinsically connected with theorising. Furthermore, he proposes that

> "Significant new knowledge about teaching cannot be used without being integrated into a person's overall teaching style, and thereby modifying both the most fundamental and the most intuitive aspects of their practice [demanding] experiment, evaluation, adjustment and routinisation [...]. More and more gets treated as problematic while less and less gets taken for granted."
>
> (*op. cit*. pp.53-54)

It might be concluded from this, then, that a developing professional would exhibit signs of locating problems within her/his practice, rejecting or testing generally accepted knowledge or theory, evaluation; adjustment; interpretation, explanation and judgement.

5.5.4 Hatton and Smith

The research by Hatton and Smith (1995) has been influential for many subsequent authors and initial teacher educators. The work incorporates a review of literature about reflection in and on practice with a particular focus on reflection in the context of initial teacher education (ITE). It synthesises theories from key authors (including Dewey and Schön) with findings from research located within ITE to develop a definition of reflection in teacher education. My recurring criticism of much research on reflection in practice, that reflection is not distinguished from reflective writing, remains true to some extent in their examination of reflection through written extracts. However, there is later recognition that the characteristics of the two are distinct and a useful discussion about a possible "genre of reflective writing" (p. 42). The analysis of written reflection includes a discussion about the necessity for descriptive writing to set the context for the reader, with a subsequent distinction, in their framework, between descriptive writing, which they assert is not reflective, and descriptive reflection.

The framework offers four "types of reflective writing": descriptive writing, descriptive reflection, dialogic reflection and critical reflection and sets out "criteria" by which the four types can be recognised within reflective writing, including examples to support interpretation of the criteria (Appendix 17). The complexity of the concept of reflection, and the challenge of articulating characteristics of reflective activity, an issue they acknowledge themselves (p.33), are demonstrated in the reliance on the words "reflection" and "reflective" in the descriptions and in the choice of examples which could be interpreted differently by different readers / researchers / assessors. (For example, the categorisation of learners as "visual and tactile" could be interpreted as indicative of failing to recognise alternative perspectives in relation to theories about preferred learning styles.)

Hatton and Smith offer an alternative to Dewey's view that reflection is initiated by a 'problem', noting that many researchers in ITE propose that reflection

> "may involve processing while a group event is taking place, or debriefing after a specific experience for the purpose of developing insights, in terms of a clearer understanding of the relationships between what took place, the purposes intended, and difficulties which arose"
>
> (p. 35).

By basing their work in the context of ITE they were able to examine ways in which the programmes of study initiated reflective activity, e.g. by setting tasks and by facilitating focussed reflection on specific incidents from practice through the use of video-recording.

Hence they were able to show that reflective activity can be initiated by external prompts and that there is potential benefit to be gained from this approach. “There is some evidence that reflective capacities can be fostered by providing students with strategies and experiences which develop the required metacognitive skills” (p.43).

An important feature of the Hatton and Smith work is their stated intention that the work should form “a basis for further research development in teacher education” (p.33).

5.5.5 Recent works on characterisation of reflection and reflective writing

Mezirow describes critical reflection as “principled thinking [...] impartial, consistent and non-arbitrary”. His view of critical reflection is influenced by the King and Kitchener (1994) typology stages 6 and 7 as follows:

> “Stage 6 Abstract concepts of knowledge can be related. Knowledge is actively constructed by comparing evidence and opinion on different sides of an issue; solutions are evaluated by personally endorsed criteria.
>
> Stage 7 Abstract concepts of knowledge are understood as a system. The general principle is that knowledge is the outcome of the process of reasonable inquiry for constructing a well-informed understanding.”
>
> (p. 208)

Mezirow and Eraut alike are concerned with the contextual nature of validation of knowledge, and this must be noted in developing a taxonomy of reflection, such that the outcome or conclusion of the reflective activity does not become a factor in the analysis process. It is the process itself which contributes to reflective practice (Bolton, 2010).

Lane *et al.* (2014), Lee (2005), Fund, Court and Kramarski (2002) and Luttenberg and Bergen (2008) are researchers who have looked in detail at typologies of reflection and assessment of reflection. Lane *et al.* (*ibid*.) undertook a comparative analysis of a range of frameworks, including the Hatton and Smith (1995) framework and the Ward and McCotter rubric, and developed a theoretical model in which the characteristics of frameworks could be classified as concerned with either depth or breadth of reflection. A notable feature of this study was the recognition that the Ward and McCotter rubric had set out to address both dimensions. Using an approach similar to that of Lane *et al*., Lee (2005) contrasted several studies in order to characterise “the process of reflective thinking” (p.701) and “the level/content of reflective thinking”. Lee developed three levels which were characterised and adopted for the ‘grading’ of the content and depth of pre-service teachers’ reflective

thinking. The levelling was applied to both journal entries and spoken reflections and there was acknowledgement of a disparity between the levels demonstrated in the reflective writing and in the dialogue. Like Lee (*op. cit*.) and Ward and McCotter (2004), Luttenberg and Bergen (2008) are concerned with both breadth and depth and the interaction between them, arguing that "consideration of the breadth (or content) of reflection and the depth (or nature) of reflection does not do complete justice to the full content and nature of reflection because the two are so intricately intertwined" (p.545). They, too, develop a two-dimensional framework, with one dimension allocated to domains of reflection, which they classify as "pragmatic, ethical and moral", and the other dimension allocated to approaches to reflection, which are defined as "open and close" (p.547). However, their study applies the framework to the analysis of transcripts from dialogue, not to reflective writing. The significance of the Luttenberg and Bergen study for this thesis is in the characterisation of deep reflection as considering a range of perspectives and a range of aspects leading to "a shift in both the nature and the content of the reflection" (p. 561). Here there is alignment with, and implicit endorsement of, the Ward and McCotter descriptors of high level reflection.

A further aspect to be considered in the analysis of assessed reflective writing is the match to the criteria for the academic award with which the assessment is associated. The work by Swanwick *et al.* (2014) develops a set of characteristics which are common to both critical thinking and reflective practice. These include "openness to inquiry and adapting practice"; ability to recognise and engage with different viewpoints [and] creatively synthesise multiple perspectives"; "tolerance of uncertainty and unpredictability"; "ability to critically assess instinct, intuition and feelings"; and "ability to articulate and present ideas that synthesise theory and practice" (p.158). Again there is alignment with the Ward and McCotter rubric.

The research of Fund, Court and Kramarski (2002) is the closest match found to this study. Like Ward and McCotter (2004) and Luttenberg and Bergen (2008) they developed a two-dimensional framework. The framework is then adopted as a tool for assessing the reflective writing of student teachers. What is distinct about this framework is that the two dimensions have been defined with explicit attention to the medium, hence they are "the *form* of writing" and "the *object* of writing" [author italicisation] (p.490) and the framework is given the acronym "WRITT **w**ritten **r**eflections **i**n a **t**heoretical **t**eacher-training course" [author emboldening] (p.491). A strength of this framework is the potential to use it as a scaffold to support students in constructing their written reflections. However, as will be discussed later, the scaffold can also become a 'crutch' which constrains the student response to a formulaic response.

5.5.6 Conclusions from the review of literature about the rubric for reflective writing

The literature reviewed provides a theoretical basis from which to justify the adoption of the Ward and McCotter rubric for the analysis of reflective writing in cycle two of this study and to inform the evaluation of both this rubric and the assessment criteria rubric used for the reflective writing assignment. In the following section, the Ward and McCotter rubric will be revised in light of the literature and in response to the findings of cycle one.

5.6 Revising the Ward and McCotter rubric in light of the theoretical underpinnings

The findings and conclusions of the pilot study supported the use of the Ward and McCotter (2004) rubric as a basis for the main study with adaptations. It was proposed that the rubric be adapted to take account of the specificity of the Ward and McCotter rubric to reflective dialogue, the significance of differences between the desirable characteristics of reflective practice as set out in the taught programme and the demands imposed by the assessment criteria for the reflective writing task. In addition, the assumption that change is a necessary outcome of effective reflective practice should be reviewed.

> "The Ward and McCotter (2004) framework has been helpful to analyse the characteristics exhibited through reflective writing. However, the specificity of the framework to written reflection must be taken into account. There is a need to develop an analytical model which distinguishes and isolates skills of reflection from skills of academic writing. The use of the Ward and McCotter framework also disregards the impact of student 'hoop-jumping' to meet the assessment criteria associated with the task. Hence the main study will consider the common and distinct features of the two frameworks. In addition, the descriptors in the 'change' row imply that change is appropriate and/or necessary. It is proposed to adapt the descriptors to take account of the fact that the existing practice may have been shown to be effective such that change would be inappropriate."
>
> Pilot study report, 2012

Table 5.1 articulates the specific criticisms of the expectations for change set out in the rubric. In searching for language which addresses the concerns identified in this critical review, there is help to be gained by revisiting Dewey's attitudes for purposeful reflection - responsibility, open-mindedness, wholeheartedness (1933:29-33). Before doing so, however, it is necessary to explore the nature and necessity of change as an outcome of reflection.

Table 5.1 Ward and McCotter (2004:250) Reflection Rubric – Column headings and 3rd row with my critical review

Column headings	Routine Self disengaged from change	Technical Instrumental response to specific situations without changing perspective	Dialogic Inquiry part of a process involving cycles of situated questions and action, consideration for others' perspectives, new insights	Transformative Fundamental questions and change
The "Change" row of the rubric	Analysis of practice without personal response – as if analysis is done for its own sake or as if there is a distance between self and the situation.	Personally responds to a situation, but does not use the situation to change perspective.	Synthesises situated inquiry to develop new insights about teaching or learners or about personal teaching strengths and weaknesses leading to improvement of practice.	A transformative reframing of perspective leading to fundamental change of practice.
Researcher critical review of the descriptor		"does not use" – this phrase establishes an expectation that a change in perspective is a necessary outcome of reflection. "change perspective" – this phrase does not allow for the possibility that the existing perspective may be reinforced by the experience and reflection process	"new insights" – this phrase, again, does not allow for the possibility that the existing perspective may be reinforced by the experience and reflection process. "Improvement of practice" – this phrase does not allow for the possibility that practice is sound	The distinction between "improvement of practice" and "fundamental change of practice" implies that the extent of the change is directly linked to the quality or level of reflection.

5.6.1 Change as an outcome of reflection – always?

One aspect of the framework which, in my view, demands further interrogation is the notion of change as a necessary outcome of effective reflective practice. In guiding the development of reflective writing a common question from tutors is "what would you do differently?" (Davis, 2006:285). Attard (2007) argues "that sameness should be viewed as failure, in the sense that if we do not change, we automatically exclude any possibilities of improved practice" (p.160). However, the concept of change is one which must be further developed if it is to be used to inform the development of assessment criteria or feedback which further develops the reflective practice of individuals.

Does change necessarily mean transformation of the way in which one performs or exhibits one's practice? The implication would be that one can only be engaging in meaningful and effective reflection if one's practice is modified in some way with every reflective episode. A consequence of this would be that there are no patterns or frames, no cases or classes of problem to be addressed and, therefore, no purpose in documenting or sharing the findings of research as they can be of no value in informing future decision making or problem solving. This is not to say that practice will not be modified but, rather, that change may be exhibited in this way or in other ways.

The key thinkers who have been consulted in writing this and previous chapters offer some guidance in this respect. Dewey's (1933) final stage of reflection ("forecast") allows for affirmation of existing personal theories and also for adaptation of those theories based on new evidence. Schön (1983) describes the concluding phase of reflection as a period of transformation: "reflecting on the surprising consequences of his efforts to shape the situation in conformity with his initially chosen frame, the inquirer frames new questions and new ends in view" (p. 269). The possibility of affirming the initially chosen frame, consolidating the existing ends in view, appears to be an unacceptable or unsatisfactory outcome. However, his model is developed from an earlier description of the process of framing the problem which does allow for the possibility of affirmation.

> "When a practitioner makes sense of a situation he perceives to be unique, he sees it as something already present in his repertoire. To see this site as that one is not to subsume the first under a familiar category or rule. It is, rather, to see the unfamiliar, unique situation as both similar to and different from the familiar one, without at first being able to say similar or different with respect to what. The familiar situation functions as a precedent, or a metaphor, or… an exemplar for the unfamiliar one"
>
> (p. 138)

Furthermore, Grimmett *et al.* (1987) clarified the conceptualisation of Schön's reflection as "reorganization or reconstruction of experience that leads to (1) new understandings of action situations, (2) new understandings of self-as-teacher or the cultural milieu of teaching, or, […] (3) new understandings of taken-for-granted assumptions about teaching" (pp.11-12). Eraut (1994, pp.53-54) also appears to be arguing that change is a necessary outcome, using language such as 'modification'. However, his concern for integration into practice supports the notion that change may be a process of accumulation, rather than the selection of distinct alternatives. Mezirow (2000) proposes that "genuinely transformational learning is always to some extent an epistemological change rather than merely a change in behavioural repertoire or an increase in the quantity or fund of knowledge" (p.48) and Raiker (2010) further develops Mezirow's work to propose that the intended outcome of reflection is "broadened and/or deepened knowledge, that is, extended cognitive structures of fact and belief" (p.49). In the specific context of undergraduate dissertation work, she sets out criteria for demonstrated reflective activity which specify "changes in perspective", "extension of knowledge base through critical thought" and "insights" (p.58). Mason and Johnston-Wilder (2004) also support the view that the change effected can relate to aspects other than actions:

> "If [learners] are going to do more than recite it back again from memory, if they are to integrate it into their awareness, then some change, some transformation, some alteration in how they perceive, what they notice and how they act, and how they account to themselves for what they perceive and notice comes about." (p.97)

This notion of changing understanding rather than changing beliefs is encapsulated in Sfard's (1994) "reification" which she defines as "an ontological shift – a sudden ability to see something familiar in a totally new light" (p.19), and Freire's concept of *praxis* as "reflection and action upon the world in order to transform it" (Freire, 1974:36). Yost, Sentner and Forenza-Bailey (2000) agree, asserting that "the end result of critical reflection for the individual is cognitive change" (p. 41).

In reviewing the Ward and McCotter typology, then, it is necessary to define the desirable and constructive outcome of reflection which has been categorised as change. There is a consensus from the literature that notions of change in perceptions, understandings, etc. are anticipated as outcomes of reflection on practice. Hence, when I am analysing reflective writing and seeking indicators of change, I am looking for articulations of changing views, personal theorising, forming and reforming of ideas etc. whilst including the possibility of

indicators of more substantive changes in practice. Table 5.2 provides a summary of these key themes juxtaposed with the 'change' section of the Ward and McCotter rubric.

Table 5.2 Ward and McCotter 'change' row with key themes from the literature

Column headings	Routine Self disengaged from change	Technical Instrumental response to specific situations without changing perspective	Dialogic Inquiry part of a process involving cycles of situated questions and action, consideration for others' perspectives, new insights	Transformative Fundamental questions and change
Change (How does inquiry change practice and perspective?)	Analysis of practice without personal response – as if analysis is done for its own sake or as if there is a distance between self and the situation.	Personally responds to a situation, but does not use the situation to change perspective.	Synthesises situated inquiry to develop new insights about teaching or learners or about personal teaching strengths and weaknesses leading to improvement of practice.	A transformative reframing of perspective leading to fundamental change of practice.
Key themes emerging from the literature	• insights • broadened or deepened knowledge • re-appreciation in light of back-talk • open-mindedness (a willingness to consider perspectives other than one's own and an acknowledgement of their value) • responsibility (an attitude of searching for truth and application of evidence) • wholeheartedness (a willingness to subject oneself to scrutiny and self-evaluation, accepting discomfort if necessary)			

5.7 Reflective writing and the relationship with reflective practice

There is an apparent assumption in the design of courses of teacher education, in common with other professional education courses, that the inclusion of reflective writing tasks can promote the reflective activity which is popularly held to improve practice (See Hatton and Smith, 1995; Yost *et al.*, 2000). There is an imperative to challenge this assumption and explore the distinction between reflective writing and other reflective situations (such as reflective thinking, reflection in action, reflective dialogue, etc.). Schön (1983, p.271) offers

some supporting arguments. He proposes that “skills in the manipulation of media, language and repertoire define the distinctiveness of a field of practice” and that experts in the field are those who “have developed a feel for the media and languages of their practices [and hence] can construct virtual worlds in which to carry out imaginative rehearsals of action”. We might explore, then, whether the medium of the written word could and should be considered to be a medium of the practice of teachers. If it is so, then there is some justification for embedding written communication within the education of practitioners. (Although one might argue that such does not justify the entanglement of written communication and reflective practice.) Eraut (1994, 2004) espouses this conflict, arguing that "academic contexts are dominated by written work so knowledge requires the ability to write” and claiming “That people learn while writing is a well-known phenomenon” (1994:33). He goes on to challenge the tendency, asserting that this skill "has relatively little value in the school context" (p.34). However, his view is not supported by key educational researchers such as Mason (2004) and Loughran (2002), or action researchers such as Norton (2009) and McAteer (2013), who advocate written reflection as a strategy for improving professional practice.

Habermas’ (1991) notion of “communicative learning” (Mezirow, 1997, p.6) is important here as it emphasises that communicative learning “involves at least two persons striving to reach an understanding of the meaning of an interpretation or the justification for a belief”. There is resonance with the explicit, latent- and meta-criteria exposed by Wyatt-Smith and Klenowski (2013) in studying the ways in which tutors acting as assessors make judgements about the quality of student work by subconscious reference to constructed personal theories and perspectives. That is, it is important to be sensitive to intention on the part of the author and to the interpretation on the part of the researcher/analyst. This draws attention to a concern commonly expressed by student teachers that they may be effective practitioners but less effective in communicating through the written word, a notion supported by Hatton and Smith (1995:42) who note specific language which has been employed by reflective authors and interpreted by analysts of reflective writing as indicative of depth of reflection.

There is relatively little research into the place of reflective writing in the development of professional competence (Hegarty, 2011; Loughran and Corrigan, 1995; Mena-Marcos, García-Rodríguez and Tillema, 2013) and much that has been written about reflective writing appears to imply a synonymity with reflection in that reflective writing appears to be used interchangeably with reflection. This lack of distinction may be unconscious (see Fund, Court and Kramarski, 2002, for example) but fails to take account of two significant factors: the motivator of the activity and the intended audience. Fundamentally, reflective thinking and

reflective practice are personal endeavours. Although they may be undertaken collaboratively, a notion which will be pursued in more detail in Chapter 9, often the dialogue is internal and any discourse with others is voluntarily undertaken. Furthermore, the prompts or triggers (Dewey's "germs") for reflection are self-selected, either instinctively, as in Dewey's "suggestion" and Schön's "reflection-in action" or in a more directed and deliberate way as in Mason's "discipline of noticing". Even in the case of a directed focus arising from targets set by influential others (e.g. mentors, line managers etc.), it is reasonable to expect that the reflection on that imposed priority is internal in the first instance. The very act of articulating personal reflections, whether through the spoken or written word, imposes a set of considerations which inevitably influence the construction of those reflections. Clarity of explanations, the need to describe the context for the benefit of one who was not present or has not experienced the antecedent episodes or factors, a concern to present a particular image in light of the power relationship between the author or speaker and the audience and perceptions of expectations are all influential factors. Loughran's (2007:129) objection to reflective writing as an assessment task is based in this principle. He argues that

> "to in some way formally assess students of teaching on their reflective processes [leads to the activity becoming] part of the 'game' of doing that which will be rewarded by grades thus trivialising reflection and its value in learning about teaching".

That is not to say that these are all negative influences. For example, Mason encourages the practitioner to separate "accounts of" the episode under consideration from "accounting for" the observed activity. That is, he encourages the reflector to locate and separate assumptions and interpretation of meaning from the observed activity and thus, by implication, he supports progression to consideration of alternative perspectives. Hatton and Smith, in their synthesis of research, note that "some seem to argue that reflection involves conscious detachment from an activity followed by a distinct period of contemplation" (p.34). It is on this basis that a counter argument can be offered to Loughran's assertion. It is proposed that reflective writing can be used to develop and enhance the reflective activity of student teachers, providing space for discourse (Iredale *et al.*, 2013; Tan 2013) and a clear role for reflective writing tasks in developing connectedness.

From the various frameworks located and evaluated, a common theme is the categorisation of description as low level in terms of reflection. (Hatton and Smith, 1995; Lee, 2005; Fund, Court and Kramarski, 2002; Lane *et al*. 2014) This approach appears to discount the fact that any author of reflective writing will necessarily engage in descriptive writing, in order to provide a clear sense of the context and circumstances around which the reflection is

constructed. (Hatton and Smith, 1995) To penalise the author for engaging in descriptive writing for this purpose would certainly discourage effective written communication but more importantly, may miss a significant aspect of the reflective activity, in which the author demonstrates awareness of the knowledge, prior experience and assumptions which s/he brings to the episode. Furthermore, it is proposed that, in describing the context and the defining characteristics of the episode in which the reflection is situated, the author is undergoing a process of sifting, selecting and framing (Dewey, 1933; Schön, 1983) such that the decisions made about pertinent information may themselves be indicators of reflective thinking. One of the strengths of the Ward and McCotter framework is that it eliminates writing style and allows for the possibility that evidence may exist of reflective practice even within the descriptive scene setting, in the selection of focus and in the process of inquiry.

A further inherent feature of reflective writing is the location in time as after the event. This, again, establishes the activity as distinct from intuitive reflection 'in the moment'. The time lapse can also have an enhancing influence on the reflective activity (Hatton and Smith, 1995), enabling the organisation of thought, the forming of connections with other experiences and encounters and the distancing of affective responses. This may influence the purpose of the reflective activity, transforming it into an after-the-fact account of decisions made and the rationale for them, rather than a dialogue about possible solutions to a current problem. Crucially, this has the potential to transform the reflective activity from a precise focus on a specific aspect of practice to a deeper exploration of the implications for teaching practice in a more general sense. It could be argued, then, that reflective writing can be used to promote the higher levels of reflective activity described in the rubric.

5.8 Conclusion - a synthetic rubric which locates reflection in reflective writing

It is proposed that the particular nature of reflective writing should be acknowledged and explicitly managed as a teaching strategy for the development of reflective practice, making the purpose and intentions clear to both students and tutors. It is further proposed that embedding reflective writing as an assessment task is a strategy to motivate students to invest time and energy into meeting the requirements. An effective rubric is one which provides clarity about the intended outcomes and contribution of the task. To be effective it must provide guidance for the student which enables her/him to engage in reflective activity and must articulate clearly the distinction between levels of activity. If successful, the student will be supported to develop the characteristics of reflection which, it is believed, contribute to improving practice, by employing the rubric to achieve high grades in the reflective writing assignment. The modified Ward and McCotter rubric is provided in Table 5.3. The framework

is specifically intended for analysis of reflective writing and it is acknowledged that this may be different from a framework for analysis of other manifestations of reflective activity.

It must be noted, at this stage, that the rubric does not form a part of the assessment strategy or design. The status of the rubric in cycle two of this study is that of a research tool. An important part of the research will, therefore, be to evaluate the alignment between the rubric and the assessment brief and assessment criteria for the reflective writing task. Yost, Sentner and Forlenza-Bailey (2000) argue that "reflective practice can be established and supported over time through the teacher education programme" (p.47). They advocate an integrated programme of "tasks that pose dilemmas for students [and in which] a variety of subject areas are incorporated and used" so that they "have opportunities to understand how their beliefs measure […] so that cognitive change can occur" (p.42). They emphasise the important role of dialogue in which students are presented with opportunities to consider the connections between theoretical perspectives and practice-based experiences. "Reflective abilities", they say, "will be enhanced through dialogue [including] structured verbal guidance". Issues relating to guidance and dialogue are explored further in the chapters which follow.

Table 5.3 Adapted Ward and McCotter (2004:250) Reflection Rubric
(*modifications indicated by italic font face*)

	Routine Self disengaged from change	Technical Instrumental *Response to specific situations is formulaic or process based*	Dialogic Inquiry part of a process involving cycles of situated questions and action, consideration of others' perspectives, new or enhanced insights	Transformative Fundamental questions *and reconstruction*
Focus (What is the focus of concerns about practice?)	Focus is on self-centred concerns (how does this affect me?) or on issues that do not involve a personal stake. Primary concerns may include control of students, workload, gaining recognition for personal success (including grades), avoiding blame for failure.	Focus is on specific teaching tasks such as planning and management, but does not consider connections between teaching issues. Uses assessment and observations to mark success or failure without evaluating specific qualities of student learning for formative purposes.	Focus is on students. Uses assessment and interactions with students to interpret how or in what ways students are learning in order to help them. Especially concerned with struggling students.	Focus is on personal involvement with fundamental pedagogical, ethical, moral, cultural, or historical concerns and how these impact students and others.
Inquiry (What is the process of inquiry?)	Questions about needed personal change are not asked or implied; often not acknowledging problems or blaming problems on others or limited time and resources. Critical questions and analysis are limited to critique of others. Analysis tends to be definitive and generalised.	Questions are asked by oneself about specific situations or are implied by frustration, unexpected results, exciting results, or analysis that indicates the issue is complex. Stops asking questions after initial problem is addressed.	Situated questions lead to new questions. Questions are asked with others, with open consideration of new ideas. Seeks the perspectives of students, peers and others.	Long-term ongoing inquiry including engagement with model mentors, critical friends, critical texts, students, careful examination of critical incidents, and student learning. Asks hard questions that challenge personally held assumptions.
Insight (*How does inquiry contribute to practice and perspective?)*	Analysis of practice without personal response – as if analysis is done for its own sake or as if there is a distance between self and the situation.	*Espouses a willingness to consider perspectives other than one's own and acknowledges their value within the constraints of existing personal frames or perspectives. Current practice and perspectives are reinforced.*	*Demonstrates responsibility to search for truth and consider evidence.* *Open to change such that practice and/or perspectives are adapted and knowledge and understanding are deepened.*	*Practice and/or perspectives are deconstructed and reconstructed through whole-hearted scrutiny and self-evaluation. Insight is evident in the reconstruction of practice.*

6. EMERGING THEORETICAL MODEL

The aim of this chapter is to capture and present the theoretical model which formed the basis of cycle two of the study, in the form that it held at the point in time at which cycle two began. The reader is asked, therefore, not to disregard the incompleteness or flaws in the model, but to recognise the intent to recount the development of the study in full and to note any criticisms for reconsideration in Chapter 9, where the model is reviewed and improved. An important example is the emphasis, in this chapter, on intrapersonal reflection and the subsequent discussion in later chapters of the significance of interpersonal reflection for professional, academic and personal development. The chapter, then, summarises the assumptions and beliefs which underpin not only the research presented in this thesis, but also the current design of the programme of study which was the focus of this research. In developing the model, connections are made with theoretical perspectives of colleagues located within the literature, and with the principles of course and assessment design set out by the institution in which the programme was located. The outcome of this synthesis of ideas is a model through which to depict the theoretical perspective for this study. Adopting an action research approach which, it was argued, was the approach best matched to the aims of the study, the model is reviewed in light of the findings of cycle two and, where appropriate, refined to take account of the findings. Using the network model of learning introduced in Chapter 3, this chapter may be viewed as seeking to narrate the way in which the nodes have accumulated and the connecting arcs have been formed. Chapter 9 will review the model in light of the findings from cycle two and will set out to show how that network was deconstructed and reconstructed through critical reflection.

6.1 Propositions on which this research is founded

In this section an attempt has been made to gather together and summarise the set of theories which had underpinned my work as an ITE programme designer and teacher and had subsequently informed the focus, aims and research questions which shaped the study reported in this thesis. It is important to emphasise that there is no intention to present these ideas as ‘facts’ or ‘truths’. They are theories which are supported within the literature and which resonate with personal experience and reflections.

6.1.1 Constructive alignment of assessment

The principle of constructive alignment is one which has been adopted by the home institution of this study as a requirement of assessment design (UoB, 2015) with guidance to designers that "Assessment strategies [should] focus on developing students' attributes and skills, as well as testing knowledge and understanding". (CLE, 2013) The rationale for this strategy is drawn from the body of research undertaken by Biggs (1996, 2007), explored in detail in Section 2.4.3. I conclude firstly, that assessment is a key motivator of learning activity and secondly, if the first is accepted, then assessment tasks should be designed to form an integral part of the development of learning (Leach *et al*., 2001; Boud and Falchikov, 2006). From these two points I propose that:

> Assessment tasks should prioritise student activity which contributes to achievement of the intended learning outcomes in addition to providing evidence to the assessor and the institution of the extent to which the learning outcomes have been achieved.
>
> (Proposition 1)

6.1.2 Reflection, reflective writing and teaching practice

The complex relationship between reflection and reflective writing has been explored to some extent in Sections 2.2, 2.3 and in detail in Chapter 5. Two key theoretical points from these discussions relate to reflection on practice and reflective writing. The first of those points is that reflection on practice is a crucial strategy for improving teaching and can be an initiator and sustainer of learning activity (Dewey, 1933; Schon, 1983, 1991; Eraut, 1994; Hatton and Smith, 1995). The phrase "learning activity" has been used here to encapsulate, both deliberate and unplanned, thinking, actions and rehearsal which contribute to the growth of knowledge. The second point is that reflective writing can be a useful tool for the organisation of reflective activity. By choosing to invest time and effort in reflective writing, the author is proactively seeking the benefits of reflection, whether cathartic, remedial or creative (Loughran, 2002, 2007; Mason, 2004; Yost, Sentner and Forlenza-Bailey, 2000; Ghaye and Ghaye, 1998). This notion is discussed in more detail in section 6.4. A corollary of these points is that:

> Reflective writing tasks can be employed as an element of a teaching strategy to initiate reflection on practice and through that reflection, to evaluate and improve teaching.
>
> (Proposition 2)

Connecting the ideas from Propositions 1 and 2, it is further argued that:

> Reflective writing tasks can be employed as an assessment task in order to stimulate engagement and to locate reflection on practice as a key element of the programme.
>
> (Proposition 3)

6.1.3 The requirements of the programme of ITE

The programme designer has a professional responsibility to ensure that the intended learning outcomes for the programme satisfy the requirements of both the governing body for the profession (currently the *Teachers' Standards*) and the governing body for higher education qualifications (currently the *Framework for Higher Education Qualifications*). In addition, the programme designer has a professional and ethical responsibility to ensure that the intended learning outcomes for the programme contribute to the development of graduate teachers who are effective teachers and equipped for continuing self-evaluation and improvement planning. From these points it is proposed that:

> The programme of ITE should be designed to promote learning which supports students to develop as effective teachers whilst simultaneously satisfying professional standards and academic qualification requirements.
>
> (Proposition 4)

6.1.4 The demands on a student teacher

A student teacher must manage a workload which includes the responsibilities of a teacher, the requirements of a student and the continuous cycles of travel (both physical and intellectual) from one to the other. Furthermore, reflection on practice requires time set aside (Hatton and Smith,1995; Moon, 2006) to sift and select, synthesise and hypothesise (Dewey 1910, 1933), to frame, select, review and reframe (Schon, 1991), to theorise, problematise and routinise (Eraut, 1994). It is therefore concluded that:

> The programme design should support student teachers by ensuring that their work as students contributes to their work as teachers, that the converse is also true, and that time to reflect on the relationship between them is prioritised.
>
> (Proposition 5)

6.1.5 Theory, practice and praxis

Perceptions of a separation between theory and practice, or between academic and professional knowledge, persist in the literature from, for example, Eraut (1994) to current

work (Darling-Hammond, 2000; Warford, 2011; for example). The following points summarise that issue and the place which reflection may have in seeking to proactively confront and, thereby prevent the division. Firstly, the common perception of disconnection between theoretical and practice-related perspectives can be perpetuated by organisational aspects such as the imposition of assignment tasks which are not explicitly drawn from experience in practice (Kamphorst *et al*., 2013). Secondly, reflection supports connection making in terms of locating pre-existing connections and, crucially, in terms of forming new, original connections which are specific to the individual (Zeichner, 2001, and see Dewey's (1933) suggestion and intellectualisation, Schon's (1991) framing and reframing and Mason's (2004) labelling). Kemmis' (2012) explanation of *praxis* as practice viewed from within is both helpful and important in the search for understanding of the place of reflection in developing practice. Iredale *et al.* (2013) offer two complementary definitions, both of which support a view of developing integrated theory and practice, and these align closely with definitions proposed by Freire (1970) and Kolb (1984), for example. For the purpose of this work, key characteristics are the notions of knowledge developed through experience, the immediacy, variability and changing nature of that knowledge and the ownership of that knowledge by the individual (Swanwick *et al.*, 2014). A third point asserts that the cyclical reflective process through which lived and observed experiences are reviewed and personal theories are constructed, deconstructed and reconstructed, is an individual pursuit. This assertion does not disregard the crucial part which others play in supporting the individual to engage in the process and contributing to the theorising through the sharing of their knowledge and experience. What it does argue, however, is that the end product is a personally held theory. I conclude, therefore, that:

> The programme design should embed reflection as a thread which draws together the various elements of the programme and enables the student teacher to make sense of theory in practice and to grow as a theoriser in practice.
>
> (Proposition 6)

6.1.6 Professional 'standards' and effective teaching

Teacher performance is currently judged by reference to performance descriptors or 'standards' in England in common with many other countries (McNally *et al*., 2008; McNamara, 2013). Professional 'standards' are susceptible to change and that change is driven by a range of factors including ideological priorities and preferences placing little emphasis on evidence-based practice development (Evans, 2011; Clarke and Moore, 2013 and McNamara, 2013). However, the perception of effective teaching is context-dependent or 'situated' (Billett 2002; Watts and Lawson; Skinner, 2010; Malthouse, Roffey-Barentsen

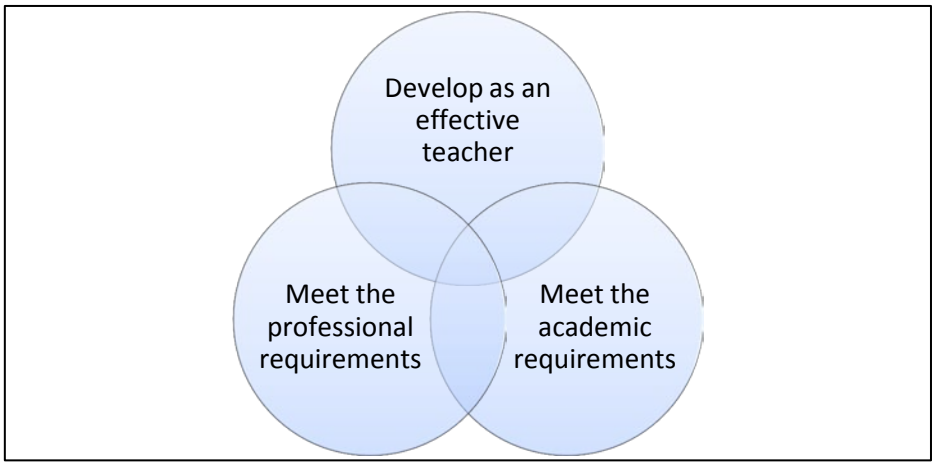
and Watts, 2014 and Pereira, 2014) and the view that an effective teacher is able to articulate the decisions made within her/his teaching and to justify and review them by reference to the professional knowledge base underpins arguments for evidence-based practice. This articulation develops beyond mere rationalisation to a critical synthesis which takes account of alternative perspectives (Loughran, 2002; Mason, 2004). A teacher's professional knowledge includes knowledge of the subject and curriculum, knowledge of the individuals in the class and pedagogic knowledge (Eraut, 1994; Shulman 1987, 2013). Therefore:

> A teacher education programme should develop a student teacher's ability to explain, justify and review her/his professional decisions by reference to knowledge of the subject and curriculum, knowledge of the individuals in the class and pedagogic knowledge.
>
> (Proposition 7)

6.2 Beginning to model the intended areas of learning – an organisational tool

The seven propositions set out above come together to offer a model of learning for programme design in ITE. In the organisational tool below (Figure 6.1), the three groups of learning intentions are represented by intersecting loops, with the intersections representing the construction of connections between theoretical and practice-based learning and the central three-way intersection representing effective synthesis of learning from all aspects of the student teacher experience.

Figure 6.1 An organisational tool for modelling areas of learning



These requirements can be mapped to the three types of reflection posed by Habermas (in Mezirow, 1997). Technical reflection is related to reflection on efficiency and effectiveness,

mapping to professional and academic requirements whilst practical reflection is concerned with evaluation of intended and actual outcomes in the application of ideas in practice, hence can be mapped to developing as an effective teacher. Critical reflection brings together technical and practical reflection and considers them within the broader context to contribute to a body of knowledge about, in this case, education. Critical reflection, then, maps to the central intersection of the tool.

However, the initial model is inadequate for several reasons. First there is dominance of the discrete elements and disadvantage of the intersections, whereas the programme seeks to cultivate the growth of the intersections, particularly the central intersection. Hence it would be possible, in this model, to 'pass over' and ignore, rather than spend time within the intersections from one element to the next. In addition, the intersections in this image are represented by overlapping segments. This representation implies juxtaposition, rather than seamless blending of one with the other. Hence the image maintains a separation whilst the programme would seek to blend and merge the two aspects. Other issues include the absence of representation of reflection, which is invisible in this model, whereas it is elemental in the programme design; and of assessment activity, also invisible in the model whilst holding an influential role in the programme design. Finally, the planarity of the model underplays the depth of the interactions between the elements and, in seeking to address the previous two points by blending the circles and by threading them with a strand of reflection, the limitations of the two-dimensional model are further emphasised.

In searching for an improved model, the intention is to develop a visual representation of the propositions set out in Section 6.1. The following section develops a model of learning with the intention of ultimately forming a connection between the model of learning and the learning intentions image here, in order to address the inadequacies identified.

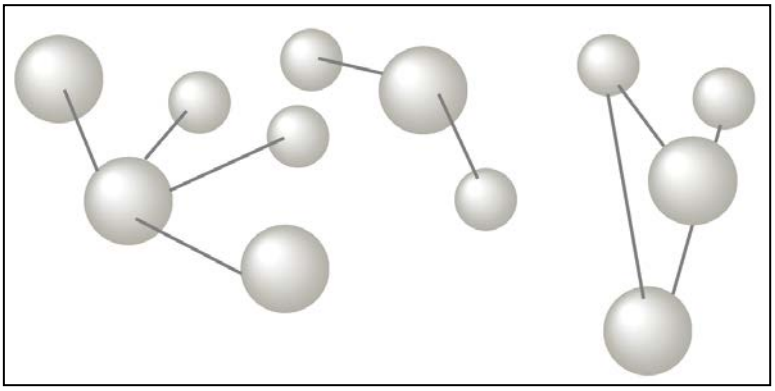
6.3 A model of learning and assessment for programme design in ITE

Raiker's (2010) model has been helpful in shifting away from a planar to a multi-dimensional model. She presents reflection as "the bridge between the reflective skills of critical analysis, critical evaluation and synthesis, and subject knowledge and understanding" (p.57), offering these pursuits as intertwined threads bridged by reflection. However, the model retains a separation of the individual threads. Reflection joins and therefore allows travel between the threads, rather than blending or merging them.

6.3.2 Improving the visual 'metaphor'

The image of learning as the forming of networks consisting of nodes and arcs set out in Chapter 3 can be further developed to consider the particular networks which are studied in the field of natural sciences i.e. chemical elements and bonds. This analogy is attractive for a number of reasons. Firstly it offers multi-dimensionality, a notion of bringing together the elements to form compounds with properties which are different from those of the discrete elements. In addition, properties such as strength and flexibility of bonds and the capacity to break those bonds and allow new connections to be formed and new purposes to be served, are attractive. This is also helpful in developing an image of learning as living and growing. Hence the structure can grow, can flex, can change the direction of growth, can interact with the environment in which it is located, can prioritise in order to optimise opportunities to sustain life and well-being. There is similarity here with Piaget's (1959) notion of "schema" which are also networks of connected ideas. Piaget (*op. cit*.) uses notions of "fusion" and "assimilation" to describe the process of adaptation to stimuli. However, whilst the characteristics of chemical structures do, at a superficial level, offer a persuasive image, the metaphor does not stand deeper scrutiny primarily, but not exclusively, because of absolute predictability of chemical reactions and, in contrast, the unpredictability of human interactions with self, others and the environment and the effect of those interactions on the construction of schema. Hence the image of learning which is adopted in the theories which follow retains the multi-dimensionality, the capacity for adaptation and the flexibility and responsiveness to external and internal stimuli, and is supplemented by the powerful human characteristic of unpredictability. Figure 6.2 begins to represent this metaphor in pictorial form.

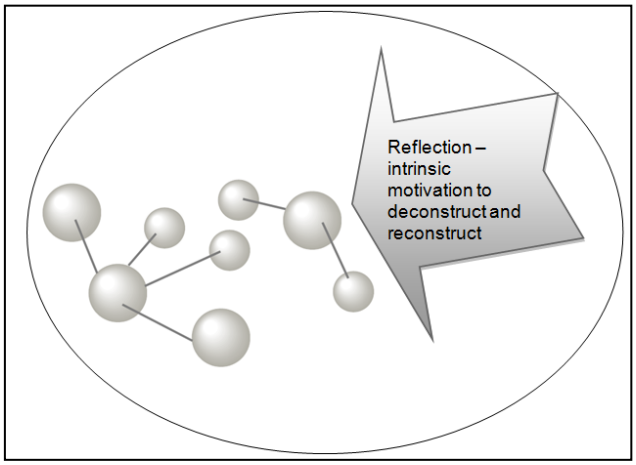
Figure 6.2 An image of what has been learned



In this image, reflection, whether internal or externalised, in isolation or with others, is the process by which the elements are caused to interact and form structures. (See Figure 6.3) Hence whilst the concept of reflection remains unseen, the effect does not. Reflection can be

an intrinsic motivator of learning activity and, as such, can be a source of growth, of strength, of flexibility, of sustenance. It is noted that reflection, and the learning which ensues, can also have a disheartening effect which may appear to impede growth although there is no assumption made that the one follows the other. The remaining characteristic is that reflection is a stimulus for the review of constructed networks. The review may result in a consolidation of the existing structure or a restructuring. Reflection can, therefore, be a creator or a consumer of energy (Dewey 1933, Mason 2004). Figure 6.3 provides a pictorial representation of reflection as it draws attention to existing structures of learning. The image should be viewed as a snapshot at a fixed point in time. It does not attempt to capture the dynamic nature of reflection or of learning.

Figure 6.3 An image of reflection as it draws attention to existing structures



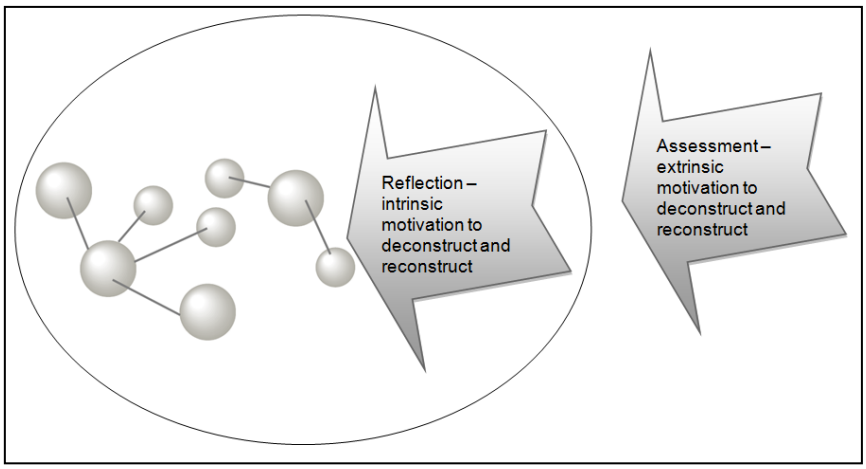
The focus of this study, however, is not on reflection in isolation, but is on the way in which reflection is affected by assessment practices. The image must, therefore be developed to take account of the influence of assessment.

6.3.2 The place of assessment in the image

It has been proposed that assessment, like reflection, can be a motivator of learning activity. Assessment can be viewed as an environmental influence on the structure, in the same way that the position of the sun in the sky in relation to the location of a plant determines the direction of growth. Hence it is, to some extent, an extrinsic factor. However, the nature and effect of that influence is characterised by unpredictable intrinsic human responses. Assessment can contribute constructively to the growth or it can interfere with it. Like reflection, therefore, it can be a creator of energy or a user of it. In designing assessment tasks and the related activity, the aim must be to align the influences of assessment and the

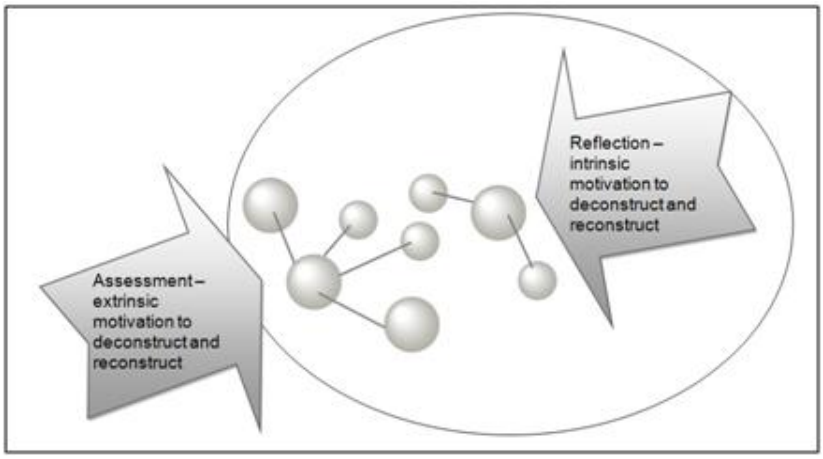
influences of reflection in such a way as to blend and harmonise the relationship with learning. This harmonious relationship is illustrated in Figure 6.4.

Figure 6.4 An image of what has been learned and the constructive alignment of assessment



The implication of this argument is that there are alternative models, in which reflection and assessment are acting out of alignment. The most extreme model is illustrated in Figure 6.5. In this case, reflection and assessment are viewed as working in opposition to each other. The image is one of conflict, and it can be anticipated that a sense of conflict or tension would be the affective response in the learner. The findings from the pilot study (cycle one) have already shown that there are students who have expressed frustration at the perceived tensions between the requirements of their developing practice and the requirements of their reflective writing. At best this can be termed ‘non-constructive’ alignment and the findings so far suggest that for some this could be described as ‘destructive’ alignment.

Figure 6.5 Reflection and learning activity with non-constructive alignment of assessment



6.4 The nature and purpose(s) of reflective writing

Earlier in this chapter it was proposed that “Reflective writing tasks can be employed as a teaching strategy to initiate reflection on practice and through that reflection, to evaluate and improve teaching” (Proposition 2) and “Reflective writing tasks can be employed as an assessment task in order to motivate engagement and to prioritise reflection on practice as a key element of the programme” (Proposition 3). In order to embed reflective writing as a teaching strategy and/or an assessment task, it is necessary to consider the factors which influence the focus, structure and content of the writing, as these will ultimately affect the quality of reflection evidenced within the writing (Chamoso, Cáceres and Azcárate, 2012).

6.4.1 Categories of reflective writing

In the following discussion, two factors are identified as highly influential: the intended audience for the writing and the initiating prompt or trigger. Reflective journals, a common requirement of teacher education programmes, are intended to be a medium through which to capture personal reflections as they arise and, therefore, the prompts for reflection might be expected to be the ‘problems’ which arise in practice. However, it is proposed that the focus, content and structure of such a journal may be reworked if there is to be an external (i.e. not self) reader. Other forms of reflective writing include lesson evaluations, task evaluations, reviews of progress, improvement planning, etc. and might be classified broadly as self-evaluation. Such activity is rarely, if ever, intended solely for self as audience. In the following overview, therefore, reflective writing activity is classified as one of three categories: reflective writing for oneself, reflective writing for others (journal) and reflective writing for others (non-journal).

The tabular format has been used to facilitate comparison of the features alongside each other. The table has been developed from an initial reflection which woke me mid-sleep in the early hours. I have included the original reflective jotting as Appendix 18 as it offers an authentic illustration of the distinction between reflective writing for oneself and for others.

Table 6.1 Overview of factors influencing reflective writing

Reflective writing for oneself	Reflective writing for others (journal)	Reflective writing for others (non-journal)
May be 'in the moment' insofar as it is jottings about something that is troubling or at the forefront in thinking at the time. For example – the thought that interrupts sleep.	May be 'in the moment' insofar as it is jottings about something that is troubling or at the forefront in thinking at the time. Topics which are considered unsuitable may be omitted. Topics which are considered popular may be appended to the 'true' reflections.	Topics for reflection may be determined by the requirements of the task. Whilst the 'problem' may (or may not) be genuine, it is likely that it is no longer a problem. The stage which has been reached when this writing is made public is effectively Dewey's "forecast" stage.
Written for an audience who is self. Therefore sentence structure, explanations of context etc. are not required.	Written for another reader. Therefore structured for understanding and may require description of context to 'set the scene' for the reader.	
Not bounded by rules, requirements or conventions.	Written to a set of criteria.	
Therefore, may capture reflective processes but can never be evaluated by others.	Therefore, may begin as 'in the moment' but is likely to be re-presented and hence becomes 'on the moment'.	
The 'problems' which are the prompt for reflection and, therefore, initiate the reflective writing are real and troublesome.	Some perplexing problems may be rejected before presentation because they are considered to be unmatched to the criteria or because they are too difficult to explain to a reader who is distanced from the practice.	

It is important to recognise that the act of reflection is a fundamental feature of all three categories. However, the nature of that reflection is different in the different categories. Furthermore, there is a body of evidence which suggests that the transition from reflection to reflective writing and from reflective writing for oneself to reflective writing for others can contribute to improving reflection. Hatton and Smith (1995), for example, discuss the importance of sharing reflective writing and engaging in dialogue with others to improve the quality of reflection. Iredale *et al.* (2013:198) describe reflective writing as "shared spaces and discourses", implying a dialogic relationship. Reflective writing might be viewed, then, as a starting point for dialogue.

6.4.2 A triad of reflection and reflective writing states

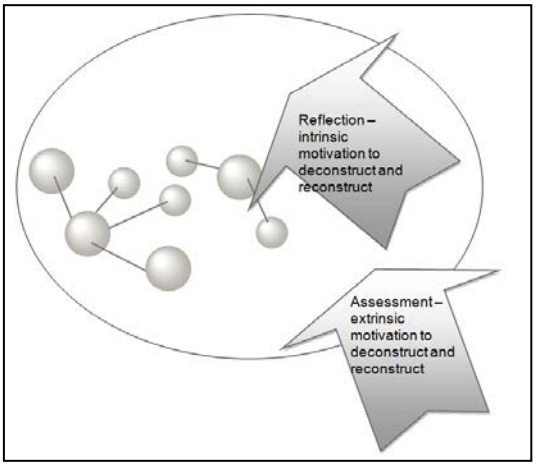
In the model of stages of reflective writing, intrapersonal reflection can be viewed as the individual's manipulation of ideas and experiences as a construction of knowledge. This can be linked to Schon's (1991) reflection in, or on action. By attempting to use language and

capture that reflection in written form, the actor is seeking to represent the thoughts using the written word. It need not be formal, nor satisfy the criteria of an external other. Bruner and Kenney (1965:56) described representation as “a store of concrete images that served to exemplify the abstractions”. Hence the representation need make sense only to the author. In the transition to writing for others, the author of reflective writing attempts to adopt conventions of language use in order to communicate the reflections in such a way as to be understood by an external reader. In order to achieve this, the author is required to consider the possibility of, and understand, alternative perceptions of the context and the actions, in order to clarify the particular perceptions which are a part of her/his personal reflection. Hence, by reference to the rubric for reflection established in Chapter 5, it is proposed that the level of reflection is enhanced.

6.4.3 Developing reflective practice by engagement in reflective writing activity

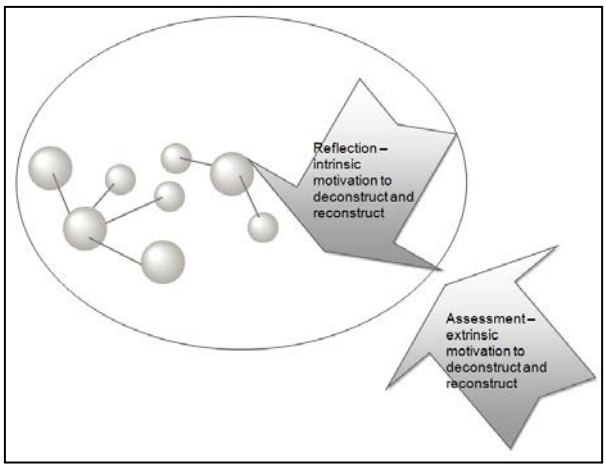
This assertion, then, supports the proposition that reflective writing tasks have the potential to be used to promote reflection and to enhance the quality of that reflection, thereby aligning assessment and reflection. However, it also highlights the issue that reflective writing activity for others, particularly that described above as ‘non-journal’, may not address the ‘problems’ which are the author’s current internal priorities for development. It is conceivable that the author must construct reflective writing for external others whilst managing internal reflection or reflective writing for self. The image is one in which reflective writing for assessment has the potential to distract the author from attending to what s/he perceives to be the real ‘in the moment’ priorities. In the visual model this might be presented as nudging meaningful reflection ‘off course’. (Figure 6.6)

Figure 6.6 Reflection and learning with non-constructive alignment of assessment



The image above, however, assumes that the author's perception of priorities is well-judged and fails to acknowledge the fact that the assessment task acts as the mouthpiece for a tutor who may be considered to be a "more knowledgeable other" (Vygotsky, 1978) or that the author may need encouragement to view the issue from alternative perspectives (Loughran, 2002). A simple example is to be found in the common concern of student teachers with disruptive pupil behaviour, which, under the guidance of a "more knowledgeable other" (*op. cit.*), can be attributed to planning which is not matched to prior knowledge or capabilities. An alternative image, then, is one in which the assessment task directs attention to priorities which had been missed. In the visual model, reflection is misdirected and is nudged 'on course' by engagement with the assessment task. (Fig. 6.7) In other words, attention is drawn to ideas or relationships which may otherwise have been missed.

Figure 6.7 Reflection and learning – an alternative image of constructive alignment of assessment



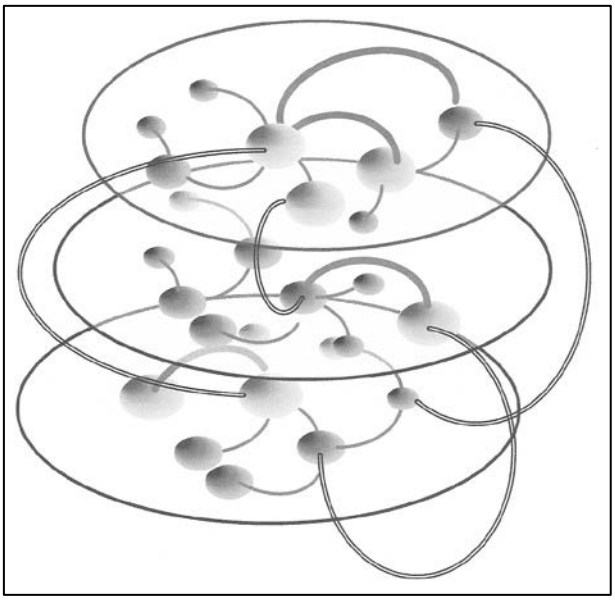
6.5 Conclusion – a theoretical model for the constructive alignment of assessed reflective writing with the learning intentions of a course of ITE

The aim of this chapter was to capture and articulate the theoretical basis for the study at the point of transition between cycle one and cycle two. There is a sense in which the chapter itself can be represented by the final image (Figure 6.8) in that it draws together a range of connected ideas from different areas of study and experience to form an interconnected network. Furthermore it remains open to the possibility of deconstruction and reconstruction in light of reflection on new ideas and experiences. The chapter, then, is offered as a statement of a current and transient theoretical position.

In the chapter the variety of demands on the student teacher in terms of intended learning outcomes has been acknowledged and categorised into three key areas of learning: practice

as a teacher, academic and professional requirements. It has been proposed that, through reflection, the student teacher has the capacity to form connections between those areas of learning and to draw on the understanding of the coherent whole alongside new encounters in order to review and revise learning. This continuous internal revision of learning about professional practice has been termed '*praxis*'. It has been argued that reflective writing has the potential to be employed as an assessment task through which to initiate and/or sustain reflection with a focus on improving student teacher *praxis*. The following image attempts to provide a visual metaphor for the connected network of knowledge from multiple fields of learning which arises from effective constructive alignment of assessment. (Figure 6.8)

Figure 6.8 The ideal position – practice, profession and academic learning connect to form a coherent and connected body of knowledge



7. MAIN STUDY - METHODS AND INITIAL FINDINGS

The aim of this chapter is to set out the methods used to collect and analyse data for the main study (cycle two) and to show how the methods provide data and findings which are matched to the purposes of the study. Reflexivity, which has determined the shape of this thesis, is evident in this chapter, with data analysis methods evolving and adapting to new understandings of the context as reflection on findings leads to further questions and theorising. Hence what emerges from this discussion of the analysis is a set of characteristics which define particular student groups or cases.

The chapter begins with an analysis of the assessment criteria rubric for the reflective writing assignment by reference to Dewey's (1933) stages of reflection and to the W&M2 rubric. This analysis is undertaken in order to evaluate the extent to which the rubric which, it is assumed, has influenced the participants' approaches and attitudes to the assessed task, has the potential to encourage reflection on practice. The analysis is presented in this chapter, and prior to the discussion of the other methods for data collection and analysis, because it was influential in shaping those methods, following the findings of the pilot study.

7.1 A reminder of the purpose and objectives of the study

7.1.1 Purpose of the study

The purpose of the study was to evaluate the influence of reflective writing tasks on the learning, perceptions and practice of postgraduate student teachers on one course of initial teacher education. Chapter 4 narrated the first stage of that evaluation and explained how the findings of that stage led to changes to the design of the reflective writing tasks. In this chapter the influence of those changes will be evaluated. Arising from that evaluation, and not within the scope of this chapter, the study aims to propose improvements to the assessment methodology.

7.1.2 Objectives of the study

This chapter contributes to the achievement of the following objectives of the study: to examine the relationship between the academic and professional achievements of student teachers on the specified course of ITE, to critically analyse and evaluate the assessment guidance and criteria which govern the nature of the student submissions and the grades awarded for both academic and professional achievement on that course and to explore

student perceptions of reflective practice and reflective writing tasks in order to gain insights into the influence of the assessment tasks on their learning and their practice as teachers.

7.1.3 The research questions for cycle two

Following the review of findings from cycle one, the research questions, action steps and methods for evaluation were revised to address emerging priorities.

The research questions which defined cycle two are:
What are the factors which influence student teacher engagement with the reflective writing tasks which are compulsory elements of their teacher education programme?
To what extent does a student teacher's reflective writing portray her/his reflective practice?
Is there a connection between a student teacher's reflective writing and her/his professional achievement?

7.1.4 The action steps for cycle two

The findings of cycle one highlighted a need to consider the implication of analysing the reflective writing by reference to a rubric which was different to the assessment criteria which had informed the student writing. With a focus on the capacity of the existing practice to promote reflection which supports learning and professional development, it was concluded that an aligned strategy would include assessment criteria which promote achievement of the intended learning outcomes; in this case, to promote reflection which leads to improving teaching practice. Hence a new action step relating to data collection and analysis was introduced to analyse the assessment criteria for potential to influence reflective practice.

7.1.5 The methods to evaluate influence for cycle two

The changes to the research questions necessitated a review of the data collection and analysis methods. As a result of that review, the methods adopted for cycle two retained, with minor modifications, the documentary analysis of student reflective writing to locate evidence of reflective practice and the questionnaire to students to discover perceptions of the value and reliability of the reflective writing assignment as evidence of professional development. In addition, two further methods were introduced, firstly the comparative analysis of grades achieved in reflective writing and practice-based assessment to locate evidence of connection between reflective writing and professional achievement, and secondly the personal reflective log (as discussed in Chapter 3.)

In addition, it was concluded that the influence of the assessment criteria for the reflective writing assignment should be taken into account and that, therefore, a systematic analysis of

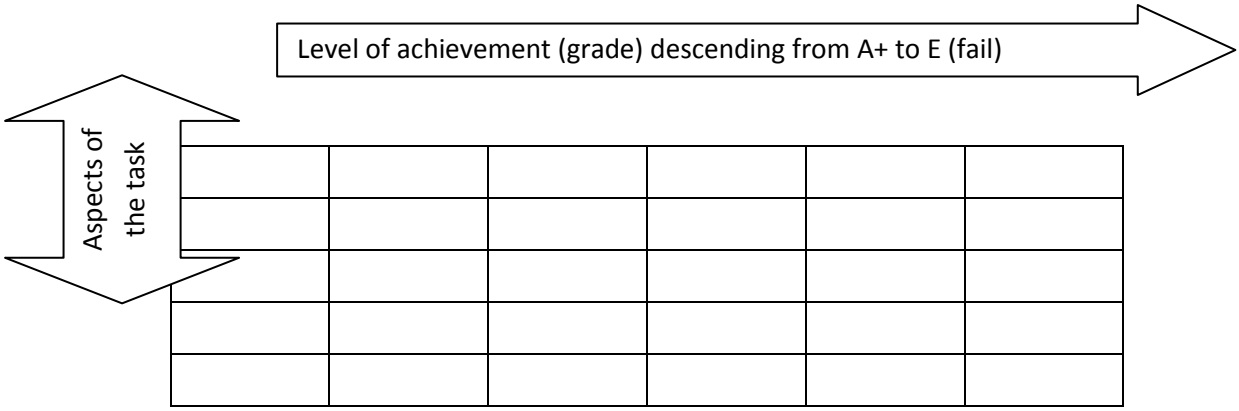
the assessment criteria was necessary to identify ways in which the assessment criteria might be considered to support the development of characteristics of reflective behaviour. Hence the first stage of data analysis was a documentary analysis of the assessment criteria rubric.

One of the most influential outcomes of cycle one was the recognition of the immediate significance of this work for practice and the potential for further development of that practice. That acknowledgment resulted in a systematic plan for action research which is presented in Appendix 6. This plan captures the immediate impact of cycle one and sets out how the subsequent modifications would be implemented and evaluated.

7.2 Analysis of the assessment criteria for potential to influence reflective practice

The assessment criteria rubric is a two-way table which sets out level descriptors for five aspects of the task using the structure indicated in Figure 7.1.

Figure 7.1 Organisation of the assessment criteria for the reflective writing assignment



The full rubric is provided in Appendix 9.

By the principles of constructive alignment, which have been accepted for the purpose of this study, the rubric should be a driver for learning. In this particular unit (or module) of study, the aims include “Improve your skills of self-evaluation and reflection on practice” and the associated intended learning outcomes include “Reflect purposefully and critically on your reading, teaching experiences and feedback from others, systematically evaluating outcomes and formulating and evaluating original proposals which address your learning needs”. Therefore it is desirable for the levels of achievement set out in the rubric to be explicitly linked to levels or stages of reflective activity.

Some student comments gathered from the questionnaire responses and, anecdotally, from tutorial discussions, have indicated a perception that the requirements of the assessment task interfere with, rather than encourage, authentic reflective activity. In conversation, one student described his efforts to satisfy the requirements of the task as “an intricate piece of crochet”, weaving together the threads of examples from practice, ideas from the course and from literature, self-evaluation and looking to the future. This perception suggests that there is a need to undertake a critical evaluation of the assessment requirements in order to understand the influences of the rubric on the reflective processes of the students. If principles of constructive alignment are adopted then there is a required outcome of this activity which is the affirmation or revision and justification of the place of the rubric as contributing to the students’ learning and/or development as reflective teachers. Therefore, an analysis of the rubric by reference to key indicators of reflective activity has been undertaken. The indicators of reflective activity have been drawn from Dewey’s (1933) stages of reflection.

7.2.1 Dewey’s (1933) stages of reflection

Dewey’s work underpins and can be located within the majority of the frameworks investigated in Chapter 5. The first step in exploring the connection between the assessment rubric and the data analysis rubric was to locate Dewey’s stages of reflection in the assessment rubric in order to locate a common thread through both rubrics, if such exists. Dewey’s six stages of reflection are suggestion, intellectualisation, hypothesis, reasoning, testing hypothesis through action and forecast (pp.107-118). Preceding these stages of reflection (and, in fact, included as the first two stages of reflection in his 1910 work (1910:72-74), are the “occurrence [and] definition” of the focus for reflection. The author of the assessed reflective writing, in common with Dewey’s actor, is undertaking deliberate, focussed thinking on an episode or sequence from lived experience (which, by implication, takes place at a time after the encounter). However, whereas Dewey’s actor is concerned with self-directed reflection prompted by a “difficulty”, “perplexity” or “problem” (1910:72) which is a personal priority, the author of the assessed writing may select a focus for the writing, with a subsequent influence on that which is noticed or attended to, based on the perceived priorities of influential others i.e. in order to meet the expectations (real or perceived) of a mentor or tutor. This attitude may be perpetuated by aspects of the assignment design. For example, written guidance in the assignment brief to demonstrate coverage of the breadth of professional competence descriptors, to support reflective writing with documentary evidence from the teaching practice or to make links with relevant literature may promote strategic attention to each of these criteria. Hence, despite expectations by assessment designers to support reflection on issues which are meaningful

personal foci and which contribute to professional development, there may be pragmatic reasons for selection of foci for reflective writing which are linked to capacity to satisfy the requirements imposed. In the analysis of data, then, there is a need to explore whether there is any evidence that the foci for the written assignment are perceived as being misaligned with the 'problems' which are developmental priorities for the authors.

7.2.1.1 Textual analysis of the assessment rubric using Dewey's stages of reflection

There are levels (columns) in the rubric which appear to align closely with Dewey's 'suggestion', 'intellectualisation' and 'hypothesis' stages. 'Suggestion' refers to the connections intuitively made between the current focus and prior experiences. Through these connections, Dewey asserts that in reflection, one constructs a mapping of the current focus to already established personal theories or ideas, developing a representative image or metaphor against which to reference the new encounter. He suggests that by using "that aspect of the original situation as a tool for grasping something perplexing or obscure in another situation" (1910:111) we can begin to make meanings and construct understandings. (1910:116-134). He proposes three "dimensions of suggestion" (1933:42-46) to be "ease", "range" and "depth" and the latter two, although not measurable, do offer some means of comparison which has the nature of a quantifiable entity. For example, the consideration and comparison of multiple possible related ideas may be an indicator of a greater 'range' than restriction to only one or two prior encounters. He notes, importantly, that this range is inevitably constrained by the actual lived experience of the actor. 'Depth' is less amenable to illustration but is commonly included in academic contexts as a distinguishing feature of high level intellectual activity. Dewey has as much difficulty as I do in offering an adequate explanation of the concept as it relates to thinking, defining 'depth' by contrast between "significant and [...] meaningless [or] superficial" (*op. cit*. p.45). The first dimension, 'ease', has been taken as located in the time period within which the written reflection is composed and, therefore, not directly located in the rubric. It is this dimension which can be related to the previous discussion about choice of foci for written reflection. "Ease" or "promptness" (*op. cit*. p.42) is likened by Dewey to the readiness with which connections are identified. It might be concluded that those who find it most difficult to form networks of ideas are those who are demonstrating lower levels of ease of suggestion. Hence there may be indicators of ease within the written submission. It is proposed that the ease with which suggestion is enacted is evident in the levels of all descriptors, as shown in Table 7.1, which also shows how Dewey's 'suggestion' stage can be located within the assessment rubric. Similar mappings are provided in Appendix 19 for 'intellectualisation', hypothesis, 'forecast' and 'sift and select'.

From this analysis of the assessment rubric it is concluded that a student who is working strategically by shaping her/his writing to satisfy the criteria of that rubric will, by association, be working to demonstrate characteristics of reflection as conceptualised by Dewey. Furthermore, in the context of a formative conversation between tutor and student about interim authoring of writing for that assignment, the guidance provided by the tutor to support a student to progress through the levels of that rubric will, by association, support that student to progress in stages of reflection. Like Swanwick *et al.* (2014), I have concluded that there is alignment of characteristics of reflection with characteristics of the academic criteria.

Table 7.1 Locating Dewey's 'suggestion' within the assessment rubric

Extract from the assessment rubric		The connection made with Dewey's construct
D (Level 7)	D (Level 6)	***Suggestion***
Recent and current research ***analysed for its implications for teaching.*** Evidence of analysis of set reading and some other sources.	***Effective use*** is made of set reading and some other sources.	Identifies connections between ideas from reading and teaching experience – thereby demonstrating the capacity to systematically recall episodes from practice and to anticipate or imagine similar episodes in future experience.
Ideas expressed with clarity and accuracy. Referencing mostly sound.	Written expression adequate to convey meaning but may contain inaccuracies. Referencing mostly sound.	
Some analysis of issues underpinning how children learn. Some ***evidence that this is used to develop own practice***.	Some consideration of issues underpinning how children learn and ***reflection on ways in which this might be used to develop own practice***.	As above, systematically relates learning theories to practice-based experience.
Evidence of ability to analyse different learning from the course and deploy those methodologies likely to increase effectiveness of own practice. ***Reflection on how strategies implemented impact upon children's learning***.	Evidence of an ***awareness of the relevance of different learning from the course***. Some attempt to explore the impact of methodologies from the course in own practice.	As above, systematically implements ideas proposed by mentors and tutors in practice.
Strengths and weaknesses analysed and appropriate targets identified. An ***understanding shown of own needs for continuing professional development***.	Evidence of an ***awareness of personal strengths and weaknesses***. Some attempt to ***set targets*** for own development.	Aspects of own development are viewed as connected to ideas and theories about 'desirable' qualities

Indicators of ***ease*** may be located within the recognition of connectivity between different experiences and the anticipation of contexts in which ideas may be applied in the future. Hence there are increasing levels of ***ease of suggestion*** indicated by the increasing levels of readiness with which the connections are made in all rows of the rubric.

7.2.2 The modified Ward and McCotter reflective writing framework

In adopting the modified Ward and McCotter framework as a tool for analysis of student reflective writing, there was a need to set out the limitations which arise as a consequence of the influence of the assessment guidance on the manner in which the students engage with the reflective writing task. Section 7.2.1 concluded that Dewey's stages of reflection are embedded within the assessment rubric which had guided and influenced the authors of the reflective writing. The fact that Dewey's stages of reflection have also provided a basis for the W&M rubric provides some assurance that the two rubrics share a common purpose, each shaped by a different contextual influence. In this section, further assurance is sought by undertaking a comparative analysis of the two rubrics, in order to set out factors which must be taken into account in making judgements about the quality of reflection evident in the assessed task. This analysis is structured by row (or aspect) of the W&M2 rubric. Whilst there is commonality of perspective evident in the first two rows ("focus" and "inquiry"), connections are less clear in the third ("insight") row.

7.2.2.1 Focus for reflection in the assignment and W&M2 rubrics

It may be argued that, for this assignment, the focus of the written reflection for the assignment is determined by the task design, insofar as the specification requires the student to respond to particular prompts set out in the brief. These prompts were set with the intention of supporting the student to construct the reflective writing as evidence of meeting the professional standards. Therefore, whilst the themes are prescribed, they are expected to align with the students' priorities for development and within the constraints of the reflection prompts, the student is required to select episodes from her/his experience as the basis of reflection. In addition, the summary reflection is less constrained, requiring the student to "select one or two areas and explore aspects in which you have made progress and subsequent ideas relating to how you might progress this aspect further" (Assessment Guide), encouraging reflection on positive experiences in agreement with Janssen, Hullu and Tigelaar (2008).

In the assessment rubric there is explicit reference to "impact upon children's learning" in the D grade column of the "Application of learning to practice" row, which aligns with "focus on students" in the W&M2 rubric and implicitly aligns with "using assessment and interactions". There is also implicit encouragement to focus on "personal involvement with fundamental pedagogical, ethical, moral, cultural, or historical concerns and how these impact students and others" in the "Understanding of learners and the learning process" row. However, it could be argued that criteria in the "Evaluation of personal and professional development" and "Application of learning to practice" rows may be interpreted as promoting a focus on

self, more than on learners as the criteria require the author to demonstrate "self-direction in the proposal of solutions to problems, addressing strengths and weaknesses". It is possible that there are latent criteria (Wyatt-Smith and Klenowski, 2013) which assume that analysis of impact on learners is an integral element of self-evaluation. However, latent criteria can only influence the student response if addressed through dialogue with the student or shared by the student without the need for articulation. Table 7.2 illustrates these points.

Table 7.2 Row one of the W&M2 rubric – "focus" - with links to the assessment rubric

W&M2 rubric Focus row	Focus is on self-centred concerns (how does this affect me?) or on issues that do not involve a personal stake. Primary concerns may include control of students, workload, gaining recognition for personal success (including grades), avoiding blame for failure.	Focus is on specific teaching tasks such as planning and management, but does not consider connections between teaching issues. Uses assessment and observations to mark success or failure without evaluating specific qualities of student learning for formative purposes.	Focus is on students. Uses assessment and interactions with students to interpret how or in what ways students are learning in order to help them. Especially concerned with struggling students.	Focus is on personal involvement with fundamental pedagogical, ethical, moral, cultural, or historical concerns and how these impact students and others.
Connectivity with assignment rubric	Focus is selected by student within the bounds of a set of themes linked to the Teachers' Standards requirements.			
	Focus is on students in all grade columns in "Understanding of learners and learning process" row e.g. Analysis of issues underpinning how children learn – evidence that this is used to develop own practice, effectiveness of strategies employed, address the needs of learners			
	Grade A column directs attention to personal innovation, self-direction, personal hypotheses, developing own strengths and weaknesses – potential for directing attention to marking success or failure and away from 'broader' influences unless they arise within the "wide range of research and reading"			

7.2.2.2 Inquiry as a feature of reflection in the assignment and W&M2 rubrics

The progressive development of characteristics of reflective activity in the 'inquiry' row of the W&M2 rubric from lower to higher levels can be summarised as having three strands: increasing consideration of others' ideas and perceptions, increasing awareness of contextual location of 'solutions' found and increasing openness to ongoing construction of understanding. Table 7.3 attempts to map these three characteristics to elements of the assessment rubric. There is no direct representation of "asks hard questions that challenge personally held assumptions" and, arguably, an implication that it would be acceptable to rely on one's own "personally held assumptions".

Table 7.3 Mapping "Inquiry" in the W&M2 rubric to the assessment rubric

Theme in the assessment rubric	Connections with adapted Ward and McCotter framework
Knowledge of theories of learning and pedagogy	Explicit requirement to consider the research findings of others. Columns B and C explicitly require consideration of impact on practice. Column A may imply this – but the implication depends upon a shared understanding that "significance" refers to significance for development of practice.
Understanding of learners and the learning process	Implicit requirement for consultation with theories from authoritative others but this is not explicitly stated.
Application of learning to practice	Explicit requirement to consider ideas from the course but there is some lack of clarity introduced by the use of the word "learning".
Evaluation of personal and professional development	The expectation of targets for ongoing development has some alignment with "long-term ongoing enquiry", but this is reliant on the attitudes addressed in the consideration of the 'Insight' row. "Proposal of solutions" in column B may signal an expectation of closure, rather than ongoing development. However, this is redressed, to some extent, by the requirement for "ongoing review". "Proposals designed to develop" in column A does signal a requirement for openness to ongoing development.

7.2.2.3 Insight as a feature of reflection in the assignment and W&M2 rubrics

The "insight" aspect has little in common with the assessment rubric. The row is shown in Table 7.4. One might, arguably, connect "consider perspectives other than one's own" with the rubric's requirements to consider "research", "ideas about how learners learn" and "learning from the course" as already discussed. Similarly, "reinforce", "adapt" and "reconstruct practice" may be aligned with "proposal of solutions", "creatively develop practice" and "formulation of hypotheses"; although this alignment is subject to interpretation. What is clearly absent is the "search for truth", "whole-hearted scrutiny" and being "open to change" i.e. Dewey's (1933) attitudes of open-mindedness, whole-heartedness and responsibility. No assertion is made that these constructs should appear in an assessment rubric. The notion of assessing qualities which are dynamic is addressed further in Chapter 9.

Table 7.4 Row three of the W&M2 rubric – "Insight"

Insight (*How does inquiry contribute to practice and perspective?)*	Analysis of practice without personal response – as if analysis is done for its own sake or as if there is a distance between self and the situation.	*Espouses a willingness to consider perspectives other than one's own and acknowledges their value within the constraints of existing personal frames or perspectives. Current practice and perspectives are reinforced.*	*Demonstrates responsibility to search for truth and consider evidence. Open to change such that practice and/or perspectives are adapted and knowledge and understanding are deepened.*	*Practice and/or perspectives are deconstructed and reconstructed through whole-hearted scrutiny and self-evaluation. Insight is evident in the reconstruction of practice.*

7.2.3 Using the analysis of the assessment rubric to inform the analysis of the reflective writing

The analysis in this section has resulted in a two-way categorisation of the characteristics within the W&M2 framework as those which can be aligned to the assignment's rubric and those which cannot. These two categories were held in mind throughout the analysis of the students' reflective writing, to inform the construction of a view about the influence of the assessment criteria and addressed in the review of the theoretical model in Chapter 9 and the proposals for next steps in Chapter 10.

7.3 Documentary analysis of student reflective writing to locate evidence of reflective practice

The reflective writing assignment consists of responses to specific prompts (Appendix 1) in relation to each of the eight *Teachers' Standards* (DfE, 2012b), undertaken at two review points throughout the year, followed by a summative "critical reflection" in which the author is required to evaluate overall progress in relation to the standards during the placement. The assignment requires the author to provide evidence to support the reflections, in the form of hyperlinked electronic documents. These documents are also used to demonstrate achievement in relation to the professional standards.

Anonymised copies of the final section of the reflective writing assignment, entitled "critical reflection", were extracted from the webfolios for all participants. In order to anonymise the samples it was sometimes necessary to copy work from a pdf file to a word document due to the absence of pdf writing/editing software. This resulted in the need to reformat line-breaks for readability. I avoided making any additional adjustments to the structure of the writing in order to maintain the integrity of the original author's work. In addition to the critical reflection extract, copies of the full set of reflective writings were later extracted for individuals who had

been identified as having specific case characteristics through the grouping process set out in Section 7.6.

Only the end of course reflections were used for analysis as they are the ones for which the grades are awarded and they were written at the point in time closest to the responses to the questionnaires. Although the development of reflective writing over time is of some relevance, it is beyond the scope of this study at this time. It is important to note that, at this stage, the hyperlinked supporting documents were not included in the analysis. This decision was based on the knowledge that the writings in such documents are not part of the assessed writing.

Adopting the same process as in the pilot study, each of the reflective writing samples was annotated to show where extracts from the writing had been linked to descriptors in the W&M2 rubric. Annotations included comments to explain why the extract had been linked to the descriptor. As an example, the end of course reflective writing submission for participant MA, annotated to show the labelling and supporting comments, is provided in Appendix 20
The timeline for analysis of the reflective writing was an important consideration as a strategy for assuring reliability of judgements. The analysis was completed before grouping participants (Section 7.6) to eliminate the possibility of pre-judgement due to knowledge of other factors.

Developing reliable analysis of the reflective writing presented particular challenges and these challenges and the responses to them are set out in the following sections.

7.3.1 Reflective writing which demonstrates transformative characteristics

Having analysed twelve documents, I noted in my reflective log,

> "There have been only two pieces of writing, so far, in which I believe I have located extracts which satisfy the criteria in the "transformative" column of the rubric. The authors are HA and BA. Prior to today I had doubted that it would be possible to demonstrate the qualities of transformative reflective writing within the constraints of the assignment and I have yet to find anything which satisfies the Transformative Inquiry criteria. However, participant HA was classified as transformative in the 'Focus' row and participant BA was classified as transformative in the 'Insight' row."

The minimal representation of the highest level of reflective writing and the observation of possible constraints led to a more refined focus on the examples which are considered to represent transformative reflection in writing in the discussion with a colleague who had agreed to provide an external validation of the analysis. The following examples illustrate the rationale used to determine the highest ("transformative") level of reflection in the examination of reflective writing samples.

The aspect of the 'Focus' descriptor which has been demonstrated by HA is "personal involvement with fundamental pedagogical, ethical, moral, [...] concerns and how these impact students [...]". This aspect has been identified in the following extract[7]:

> "I have had the opportunity of working with Pupil (BS) who needs braille and tactile. Scanlon (2012) suggests the importance of 'pupil voice' [Page 1]. I have found this vital in teaching Pupil (BS), I find that the pupil can often help me with my planning. In particular, if I am concerned about the level of scaffolding I use or the accessibility of a task, Pupil (BS) is often able to inform me of how I could help.
>
> I think working with Pupil (BS) has enabled me to assess how I challenge pupils with a form of mental or physical disability. I think this has suggested to me that within attainment levels, there should be some provision for pupils, such as Pupil (BS) to be appropriately challenged. This is supportive of the views Cockcroft (1982) holds regarding the pace of individuals."
>
> (Participant HA)

In this extract the author selects a specific example from her/his experience and compares it with the perspective espoused in the selected literature. S/he articulates a view that the pupil perspective provides information about the impact of teaching which is valued. S/he is involved self critically with her/his teaching and the impact it has on learners. There is a possibility that the linked document "challenge pupils" would provide further indication of systematic consideration of impact on learning, but this has not been analysed for the reasons set out in section 7.3.

[7] The underlining in this extract indicates a hyperlink to supporting documentary evidence

Transformative insight is characterised by the deconstruction and reconstruction of practice and whole-hearted scrutiny and self-evaluation. In the following extracts, participant AA deconstructs her/his practice and uses interactions with students to evaluate practice.

> "Even after I had built up good relationships with the class I still found that I would be raising my voice to achieve silence to introduce new tasks or while verbally questioning students"

> "I have tended to shy away from kinaesthetic tasks in which behaviour may be harder to control and the lesson could easily get out of hand with the more difficult students in the class. However, I need to overcome this fear and trial different tasks, especially in the safety of being observed by my mentor to see what will work with this group and not let behaviour become a factor."

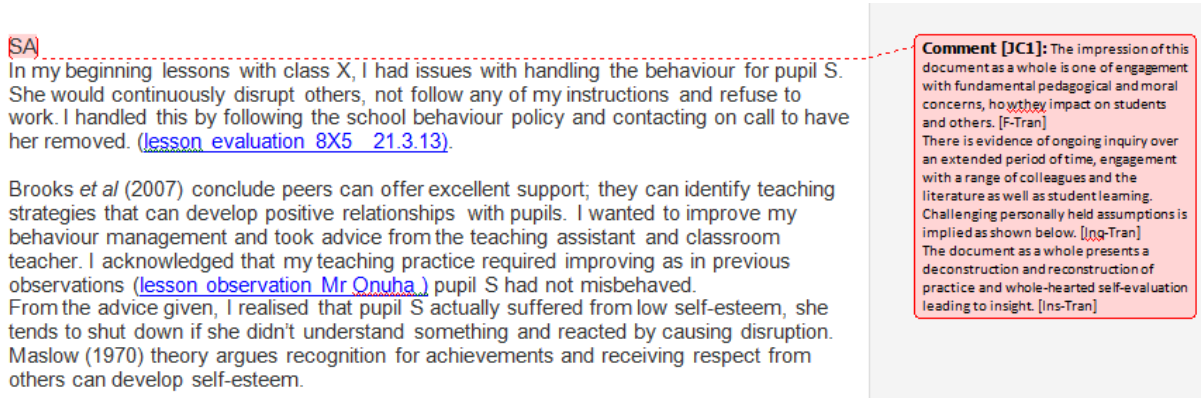
(Participant AA)

As an external reader, the interpretation of what is written as 'whole-hearted' is proposed on the basis of the selection of an area of personal risk by the author.

In the subsequent analysis of further samples, the work of participants MA, OA, PA, RA and SA were judged to satisfy the criteria for 'Transformative' in all three strands (Appendix 21). One criterion for 'transformative inquiry' which was considered to be most problematic due to the constraints of the task is that of "long-term ongoing inquiry". There was some concern over whether it would be possible to demonstrate or articulate an attitude of sustained exploration. In addition, there was a debate around a shared interpretation of "long-term", particularly within a semester long unit of study. In the following paragraph, MA and SA have been selected to surface the justification for, and exemplify, some of the conclusions reached.

MA demonstrated "long-term inquiry by recounting the development of differentiation strategies over the course of two placements and analysing that development by reference to mentor, peers, students and researchers" (My annotation on the document). Clearly this judgement cannot be linked to a sentence or paragraph within the text. Rather, it is a judgement formed cumulatively as the whole piece is read. Similarly, SA's work was annotated as demonstrating the characteristics of transformative reflective writing across the piece. This annotation is illustrated in Figure 7.2.

Figure 7.2 Extract from the reflective writing of SA annotated to indicate the criteria satisfied



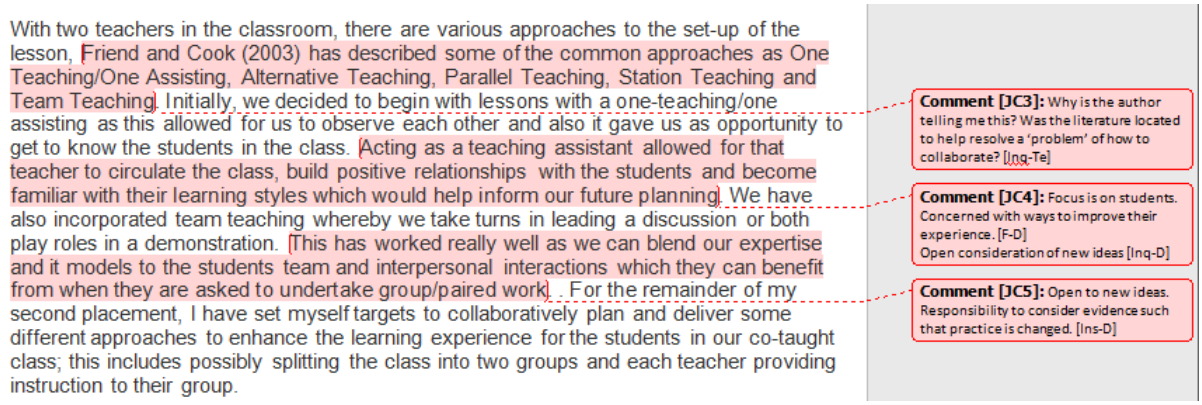
Particular attention was paid, in both samples, to the rationale for confirming evidence of the "long-term ongoing inquiry" criterion. In both cases it was the structure of the document as a whole which provided evidence of sustained attention to an aspect of practice, with each discussing the stages of development of a personal pedagogy. This presented a challenge to the proposed analysis method which is discussed further in the following section.

7.3.2 Atomistic and holistic linking of criteria to extracts from the reflective writing

The discussion in Section 7.3.1 is one illustration of a broader difficulty associated with the atomistic application of the W&M2 criteria to the extracts of reflective writing. In an attempt to maintain reliability and repeatability, the planned method was to identify specific examples of writing which satisfies particular criteria from the rubric and annotate the extract to indicate precisely where a criterion was met, commenting on the reasoning for the connection made. An example of the method is provided in Figure 7.3. However, in adopting the method, there was a risk that this approach failed to take account of the cumulative effect of the extract and there was a need to maintain a holistic overview in addition to the identification of discrete indicators of individual characteristics. In some cases there was debate around the decision to be made if a criterion was satisfied partially. For example, in the work of CB, there was evidence of the majority of aspects of the descriptor for "dialogic inquiry", including seeking the perspectives of peers and others, but no evidence of seeking the perspectives of students. It was agreed that the decision in such a case would be to align the judgement to the judgements in the other strands and the overall impression, further supporting the view that there is a place for a holistic judgement. The presence of descriptors to support each of the 'levels' proved helpful in forming the broader judgement. Hence in categorising the work of TA, for example, the overall descriptor "self disengaged from change" was used to justify a judgement of 'routine inquiry'.

Figure 7.3 Example of reflective writing annotated to indicate the criteria satisfied

(Extract from the reflective writing of participant BA)



Modifying the intended approach in this way was undertaken whilst remaining alert to the Wyatt-Smith and Klenowski (2013) notions of "latent and meta-criteria" and the broader interpretivist understanding that, in making judgements about the meanings of reflections written by another, we were bringing a personal perspective, or viewing the writing through a personal 'lens'. Section 7.3.3 attempts to articulate the strategies used to address this.

7.3.3 Interpretation of intent in reflective writing

The example analysis below illustrates the approach employed to make transparent the internal dialogue, the conclusions drawn and the justification for those conclusions, thereby seeking to open for scrutiny any latent or meta-criteria underpinning the analysis of the reflective writing samples. This example dialogue is intended to exemplify the approach adopted in the analysis of all samples.

Participant IA summarises in one paragraph the tensions encountered when s/he sought to implement strategies to 'manage behaviour', including decisions to adopt personally favoured strategies in place of school policy. One possible interpretation is that the author has evaluated the impact of contrasting strategies and selected the most effective. However, there is no evidence of any evaluation (i.e. no analysis of own actions or pupil responses) by which to confirm that a systematic evaluation has taken place. The evidence in the written piece is a claim of observed pupil 'engagement'; 'attainment'; and 'confidence'.

> "As a result, low-level behaviour issues quickly reduced to manageable levels and pupil engagement increased, especially during Whole Class Teaching. This induced improved attainment and confidence."
>
> (Participant IA)

Hence this extract is located somewhere between ‘Technical’ (“uses assessment and observations to mark success or failure without evaluating specific qualities of student learning”) and ‘Dialogic’ (“uses assessment and interactions with students to interpret how […] students are learning”)

A sceptical reader might argue that the author here may be making claims which are not substantiated in practice. This was a concern of some students in the pilot study, who felt that documentary evidence to support all claims of progress should be a requirement of the task. However, what is clear from this extract is that the writer has formed a view that behaviour management, engagement, attainment and confidence are intrinsically connected, irrespective of the outcomes in this particular circumstance. It can be argued, then, that this writer is ‘theorising’ in practice, thereby “demonstrating responsibility to search for truth” and satisfying the ‘dialogic insight’ characteristic. This judgement is cumulatively supported by the content throughout the extract e.g.

> “The students had low motivation, contributing to significant low-level disruption. I believed this was stemming from a lack of self-belief and confidence in their mathematical ability.”
>
> (Participant IA)

This extract also supports a judgement that the focus is “on the students”, that there is a “concern with struggling students”. Hence the cumulative effect of the two selected extracts and the interconnecting text is a ‘dialogic focus’ characteristic.

However, there is little evidence of openness to change and some evidence of a resistance to change e.g.in this discussion about approaches to behaviour management:

> “At the start of the placement, I chose to follow the adage: don’t smile until Christmas [reference removed]. I believed this would enable me to establish clear expectations and set firm boundaries. Subsequently, I learned that this was in stark contrast to the school ethos [reference removed] as the school prides itself on its relationship with students. Nevertheless, I believe this enabled me to communicate my classroom rules efficiently and acquire a reputation as ‘being strict’
>
> Having made my expectations clear, I enforced these rigorously: ensuring that students spoke in turn, did not talk whilst I was talking and attempted the work.”
>
> (Participant IA)

As a result of the absence of evidence of adapting perspectives, the ‘technical insight’ criterion is considered to be the best match.

There is also a question about the basis of the writer's views about pupil feelings of motivation, self-belief and confidence and this question concerns the participant's interpretation of the behaviours of her/his pupils in just the same way as this section considers my interpretation of the participants' writings. It is not possible to know how the conclusions were drawn without asking this participant. There is clear articulation of seeking the views of mentors and tutors. Hence the writer does seek perspectives of others. However, s/he does appear to 'close' the issue or stop asking questions after initial problem is addressed. Therefore the characteristic of 'technical inquiry' is considered to be the closest match.

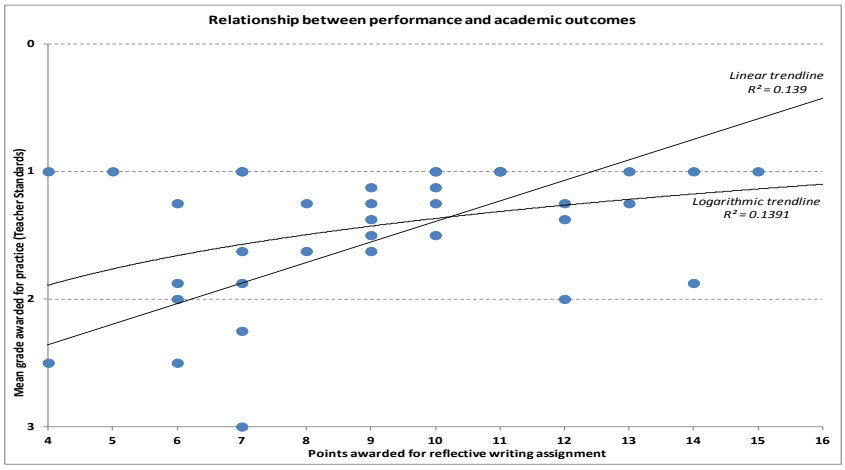
7.4 Comparative analysis of grades

The reason for undertaking this analysis was to locate any evidence of a connection between attainment in the reflective writing assignment and judgements of professional achievement. Grading of practice-based achievement employed the nationally recognised four point scale, adopting the descriptors developed by UCET/NASBTT/HEA (UCET, 2012) for the assessment of student teachers (Appendix 22). Grouping the participants by overall grade reveals little connection between achievement in the reflective writing and the performance outcomes, although summarisation using averages and distribution measures does give some indication of relationships i.e. students who were graded one for performance have a higher mean, median, all quartiles and the highest grade achieved. Only one student was graded three so was not included in this comparison. Consequently this analysis is based only on a comparison between those achieving grades one and two. The limitations of the four point scale have been discussed in Section 3.6.1 and the section explains how a fine measure of attainment is available by calculating a mean grade for each participant as a consequence of the use of the descriptors to provide a grade against each of the eight *Teachers' Standards* (DfE, 2012b). The mean grade is an established measure in the evaluation of impact for course review and is, therefore, a familiar measure.

It has also been proposed in Chapter 3 that simple regression analysis can be used to identify indicators of a connection between achievement in the reflective writing assignment and in the assessment of professional practice. In order to undertake the regression analysis, numerical grades in the assignments for each of the participants have been collected. At the time of this study the numerical grading of assignments was based on a sixteen point scale where the maximum point score was sixteen and the minimum pass score was five points. No participant scored less than four points.

Microsoft Excel software was used to tabulate the grades for each participant and the regression function was used to calculate residuals using simple linear regression. In order to provide a visual representation of the correlation, a scatter graph was generated and the regression line function was used to show the linear regression line. Non-linear models were also investigated in order to seek an improved correlation by comparing values of the regression coefficient R^2. However, R^2 values of 0.14 (1dp) were the best achieved (see Figure 7.4. Thus any correlation is very weak. However, the scatter diagram and associated residual analysis facilitates identification of particular subjects of interest e.g. Those who are having most influence, either towards or away from, any conceivable trend.

Figure 7.4 Regression lines generated by Excel with calculated R^2 values



7.5 Student perceptions questionnaire

The purpose of the questionnaire was to discover student perceptions of the value and reliability of the reflective writing assignment in communicating their reflective practice and as evidence of professional development. The questionnaire which had been trialled in the pilot study had been modified in an attempt to improve the match between the intentions of the questions and the participants' interpretations of them. Participants were invited to make their identity known if they were willing to authorise the match of questionnaire responses to achievement outcomes. 23 of the 38 respondents authorised the matching.

The questionnaire responses were anonymised using a random number generator and collated in a Microsoft Excel spreadsheet to facilitate mapping of questionnaire responses to achievement data where authorisation had been given.

Likert scale responses were assigned numerical coding such that lower values were more positive as illustrated in Figure 7.5.

Figure 7.5 Illustrative example of numerical coding for questionnaire responses

Strong influence	Some influence	Little influence	No influence
1	2	3	4

7.6 Grouping students for the identification of 'cases' for study

Through the analysis of outcomes and perceptions it has been possible to group participants according to characteristics of interest. The characteristics of interest are: achievement in the reflective writing assignment, achievement in the assessment of practice and perceptions of the relevance of the reflective writing assignment to improvement of practice.

7.6.1 Achievement in the assignments

Achievement in the assignments has been categorised as shown in Figures 7.6 and 7.7. Based on these initial categories, two cases of interest were defined in relation to achievement in the assignments: participants who achieved high outcomes in both the reflective writing and the practice assessments and participants who achieved low outcomes in both the reflective writing and the practice assessments.

Figure 7.6 Categories of achievement in the assessment of practice

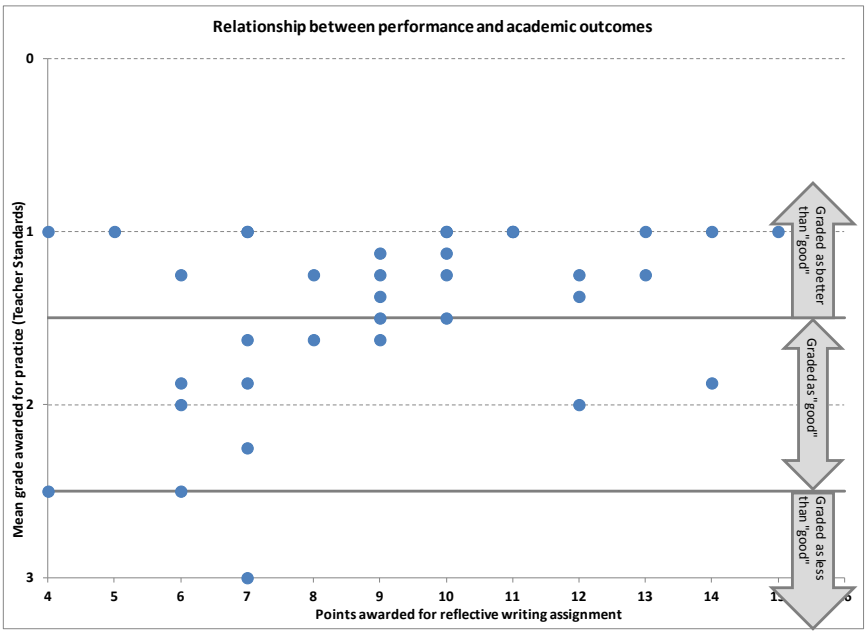
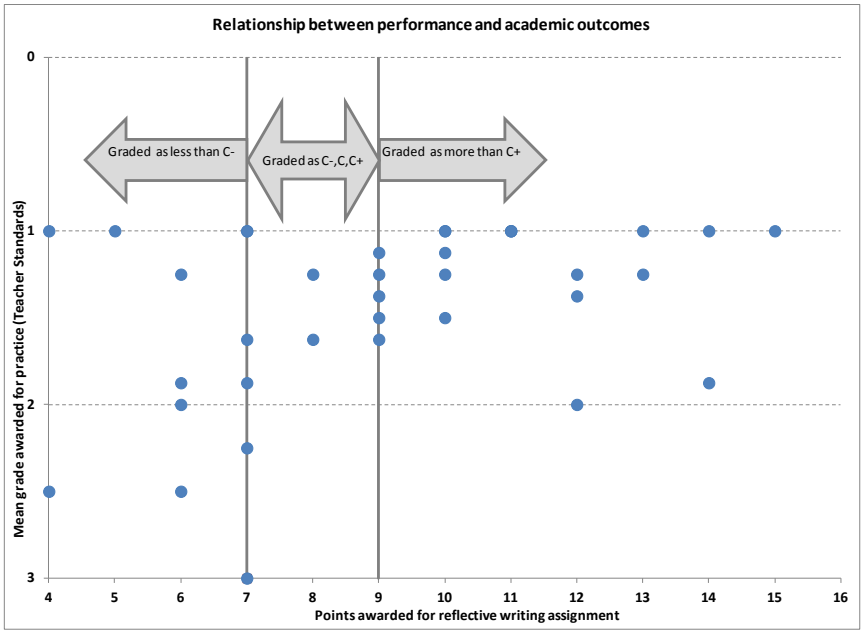


Figure 7.7 Categories of achievement in the reflective writing assignment



In considering a possible relationship between achievements in the two assessments by inspection of the scatter diagram, three cases of interest which might be considered to be outliers are revealed. One participant achieved a low grade in the practice assessment and achieved better than minimum grades in the reflective writing, five participants achieved a high grade in the practice assessment and achieved low grades in the reflective writing and two participants achieved a high grade in the reflective writing assignment and achieved lower grades in the practice assessment when compared to other participants. These cases are identified in Figure 7.8 as groups A, B and C.

The participants who have not been allocated to groups A, B and C have been assigned to group D. Group D can therefore be described as: participants for whom achievement in the reflective writing assignment and the practice assessment appears to be equivalent. The basis of the claim of equivalence is a value of 0.7 (1 d.p.) for R^2 for these participants, as shown in Figure 7.9

Figure 7.8 Grouping participants by grades achieved

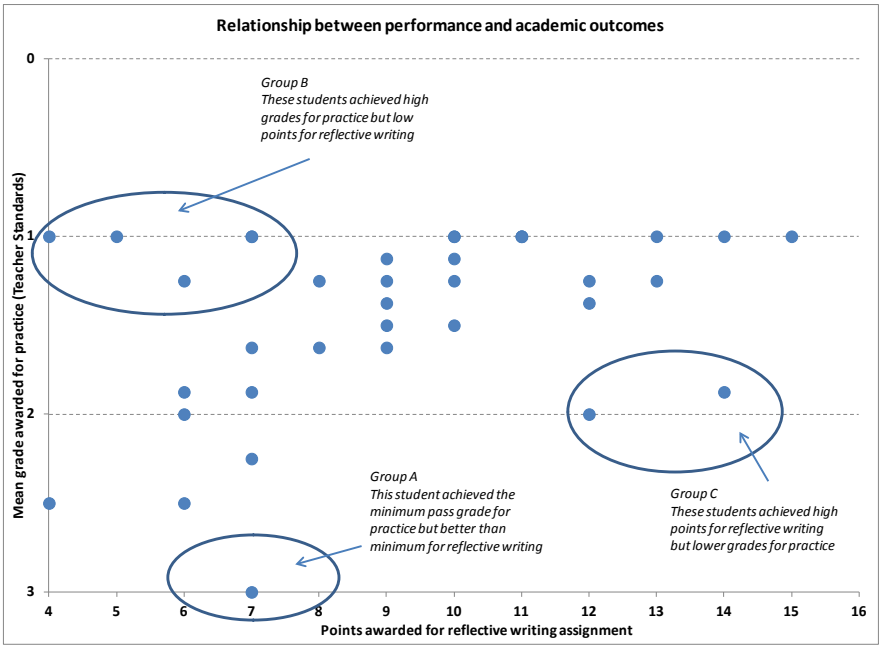
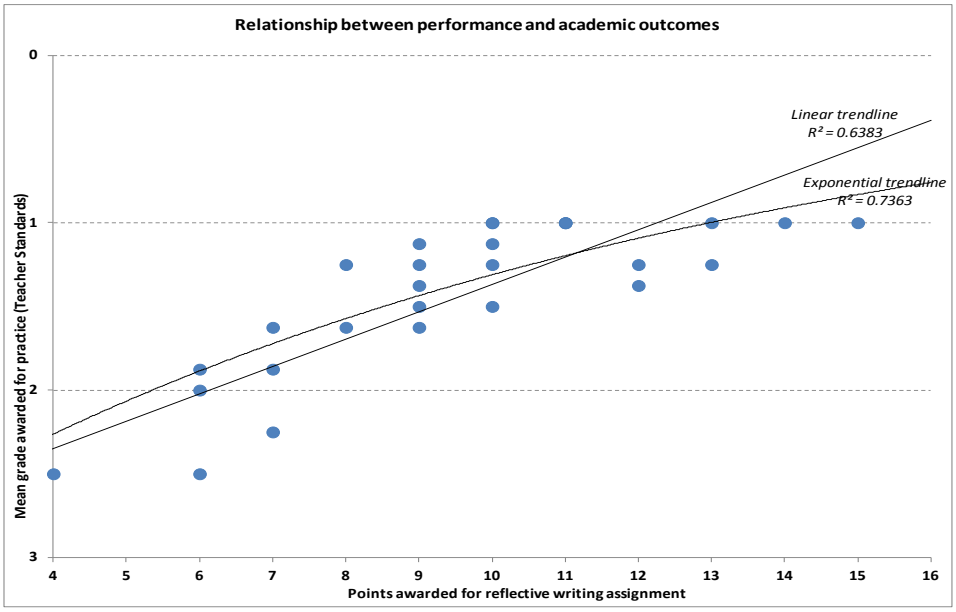


Figure 7.9 Correlation for group D



7.6.2 Perceptions of reflective writing

By considering participant perceptions as expressed in the questionnaire responses, sub-categories of the above cases have been identified as participants who responded positively to questions about the value of the reflective writing assignment and participants who responded negatively to questions about the value of the reflective writing assignment. The questions from the questionnaire which can be used for this purpose are:

Q3. In your opinion, how effective is reflective writing as a tool for communicating your personal reflections on practice?

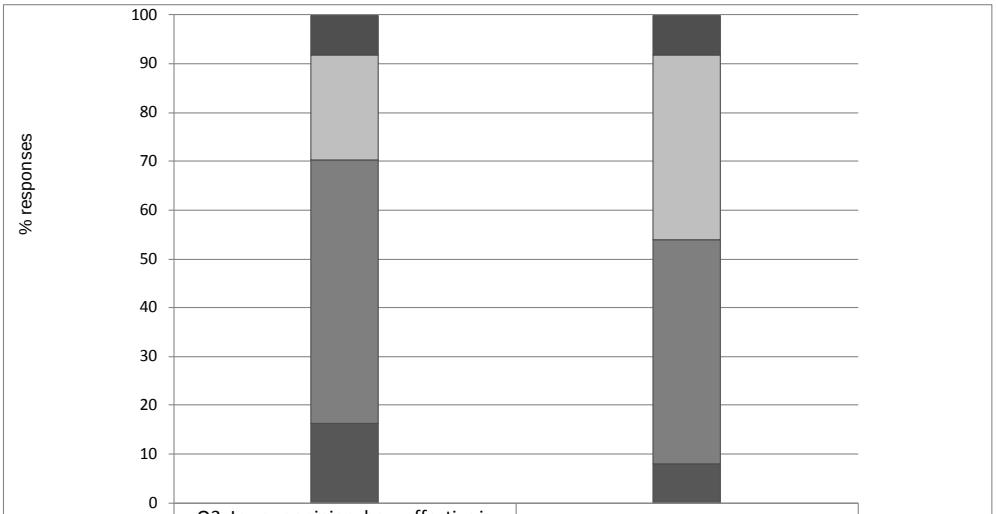
Q4. Please comment on the use of reflective writing as a tool for communicating your personal reflections on practice.

Q5. In your opinion, how effective is reflective writing as evidence of your progress as a teacher?

Q6. Please comment on the use of reflective writing as evidence of your progress as a teacher.

A positive response in questions 3 and 5 has been classified as one in which “effective” or “very effective” is selected. Figure 7.10 summarises the responses to questions 3 and 5.

Figure 7.10 Responses to questions relating to effectiveness of reflective writing in relation to practice



	Q3. In your opinion, how effective is reflective writing as a tool for communicating your personal reflections on practice?	Q5. In your opinion, how effective is reflective writing as evidence of your progress as a teacher?
Not effective	8	8
Rarely effective	22	38
Effective	54	46
Very effective	16	8

Questions 4 and 6 provide further information about the reasoning which underpins the selected response. The answers to these questions will provide the detail required for the case study analyses.

7.6.3 Characteristics from the Ward and McCotter rubric

The outcomes of the analysis of the reflective writing samples were summarised in a spreadsheet to facilitate the subsequent organisation and categorisation of cases. Hence a further set of cases were identified as those which could be classified as broadly 'routine', 'technical', 'dialogic' or 'transformative', through application of the W&M2 criteria. On completion of this aspect of the data analysis, this summary was merged with the outcomes and perceptions sheets in order to compare characteristics of individuals and groups.

Organisation by W&M2 characteristics proved to be the most insightful, drawing attention to surprisingly distinct relationships which challenged and tested the theoretical model on which this study has been based. As a consequence, it is organisation by the W&M2 categories which has shaped Chapter 8.

7.7 Personal reflective log

The action research approach is concerned with the development of practice and, as such, positions the researcher as a participant and an inhabitant of the practice which is under scrutiny. Furthermore, the approach is one in which reflection on the impact of that practice forms one of the stages of the research. That reflection, then, must be considered to be data and, therefore, be available to those who have responsibility for judging the quality of research. A fundamental rationale for maintaining a reflective log was, therefore, to recount the theorising of the researcher for readers who are external to the research.

7.8 Reliability and repeatability

Analysis of the reflective writing extracts using the W&M2 rubric was evaluated for reliability by seeking the opinion of a colleague who had experience of assessing reflective writing in other contexts. The colleague had not been involved in the design, teaching or assessment of the course on which these students had studied. Hence, although it is acknowledged that prior experience and preconceptions were still influential factors, the influence of course specific latent- and meta-criteria (Wyatt-Smith and Klenowski, 2013) would be minimised. Furthermore, during the discussion, specific attention was paid to the prior knowledge which was drawn upon in coming to a judgment. The discussion was recorded to support subsequent reflection and to document key indicators of reliability and repeatability.

Four extracts from the sample were selected and analysed by both myself and the colleague independently. Time to reflect on and revisit the task was scheduled as a strategy to assure

a deliberative dialogue about both the content of the extracts and about issues arising from the application of the rubric for analysis purposes.

The judgements of the writing using the assessment criteria for the assignment had been ratified through the regulatory moderation processes of the institution. Hence it was decided not to implement further reliability assurance processes for those data. Furthermore, there was no scope within this study to explore the reliability of the judgements of professional performance using the UCET/NASBTT/HEA grade descriptors (UCET, 2012), due to the practice-related nature of the judgements and the post-graduation timing of the study. However, it is acknowledged that the assumption of reliability in these measures is a limitation on the repeatability of the findings.

8. MAIN STUDY - FURTHER FINDINGS AND DISCUSSION

8.1 Introduction

This chapter will summarise the findings from the analysis of data collected in the main study (cycle two) in order to establish indicators of the influence of reflective writing tasks on the learning, perceptions and practice of the postgraduate student teachers who were participants in this study. The chapter contributes to the achievement of the objectives of the study by:

- examining the relationship between the academic and professional achievements of the student teachers;
- critically analysing and evaluating the assessment guidance and criteria which govern the nature of the student submissions and the grades awarded; and
- exploring student perceptions of reflective practice and reflective writing tasks.

The reflective log, adopted as a strategy for assuring the trustworthiness of this work, will provide further insights which contribute to the findings and these insights include reflections on the nature of reflective writing and the place of others in the theoretical model, both of which contribute to further development of the model in Chapter 9. The chapter concludes with a critical evaluation of the data collection and analysis methods (Section 8.6) and a summary of the key findings. (Section 8.7).

8.2 Examining the relationship between academic and professional achievements

8.2.1 Overview of the sample

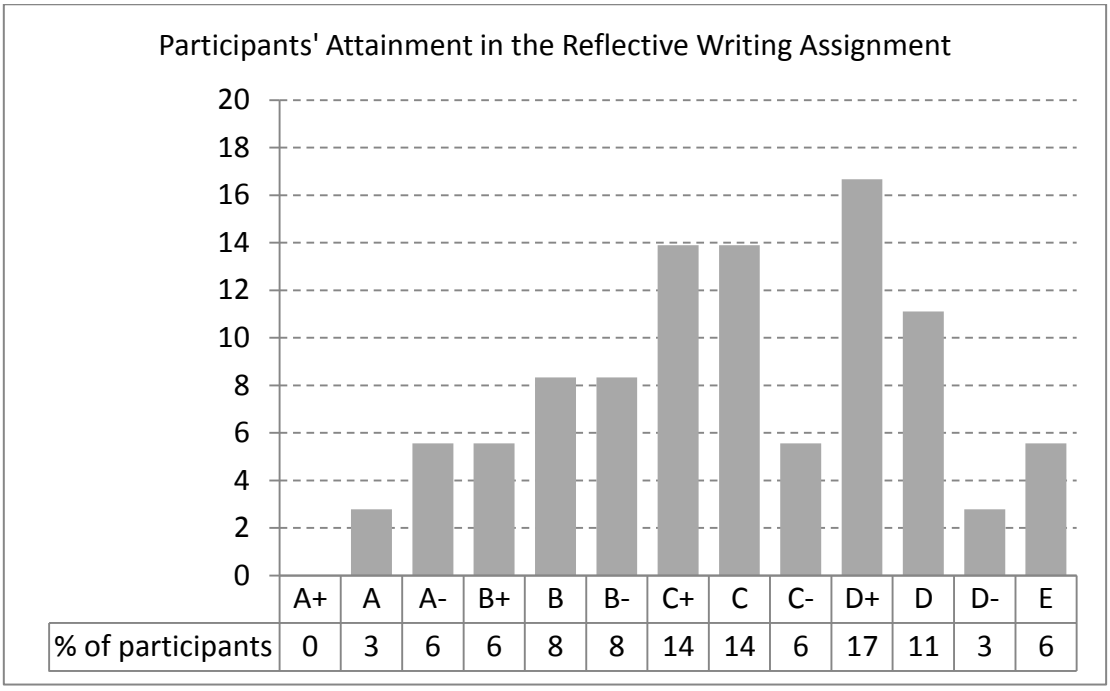
The findings below provide an impression of the sample as a group of graduate teachers, all of whom have been judged to have achieved high grades (when compared to Ofsted expectations) in the professional aspects of the course and lower grades (when compared to institutional benchmarks) in the academic aspects. When analysed using the W&M2 descriptors, the evidence of reflective qualities found within the reflective writing of these participants appears to be equally distributed between routine-technical and dialogic-transformative characteristics with tendencies in both halves of the distribution towards the central (technical and dialogic) levels of reflection. The likeness to the ‘bell’ shape of a ‘normal’ curve is useful as a visualisation of the distribution but no mathematical model is claimed. It is worth emphasising here that the word distribution is used in this discussion to

refer solely to the relative frequency of responses in each of the categories and not to infer any mathematical modelling or prediction. Relative frequency is preferred to frequency as it make transparent the calculations of proportion which are drawn upon in the discussion. The detail on which these summary statements have been based follows.

8.2.2.1 The assignment outcomes

The distribution of grades awarded for the reflective writing assignment across all samples is shown in Figure 8.1. The distribution is skewed towards the lower grades, with 37 percent of the extracts awarded D+ or lower and less than 50 percent (44 percent or 16/36) of the sample awarded a grade of C or higher.

Figure 8.1 Relative frequency distribution of grades for all reflective writing samples

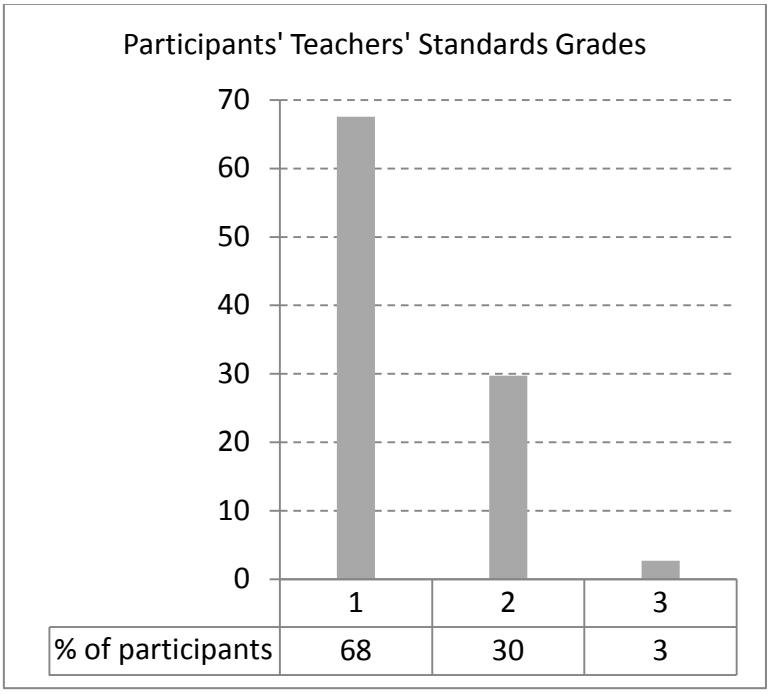


	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
% of participants	0	3	6	6	8	8	14	14	6	17	11	3	6

8.2.2.2 The judgements against the Teachers' Standards

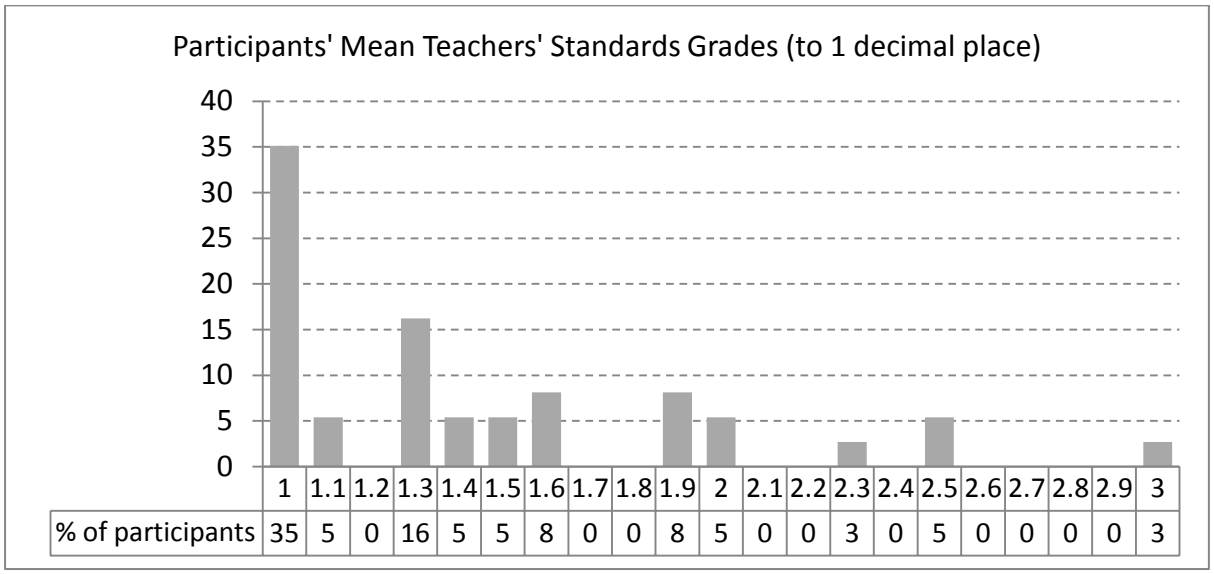
The distribution of grades awarded for professional practice (Figure 8.2) graded by reference to the Teachers' Standards descriptors (Appendix 22), is strongly skewed towards the high grades. As discussed in Section 3.6.1, this can be explained firstly by the coarse gradings, secondly by the constraints (all participants have completed the course and therefore, by implication, achieved a minimum grade of three) and thirdly by the departmental policy of interventions for students who are considered to be 'at risk' of achieving grade three. Students in this category will have received supplementary action planning and focussed support to satisfy the requirements for at least a grade two.

Figure 8.2 Relative frequency distribution of Teachers' Standards overall grades for all participants



The distribution of the mean grades awarded across the Teachers' Standards (Figure 8.3) further illustrates the strength of the skew, with 33 percent of participants achieving a mean grade of 1.0, indicating that they were graded as 1 in all eight standards.

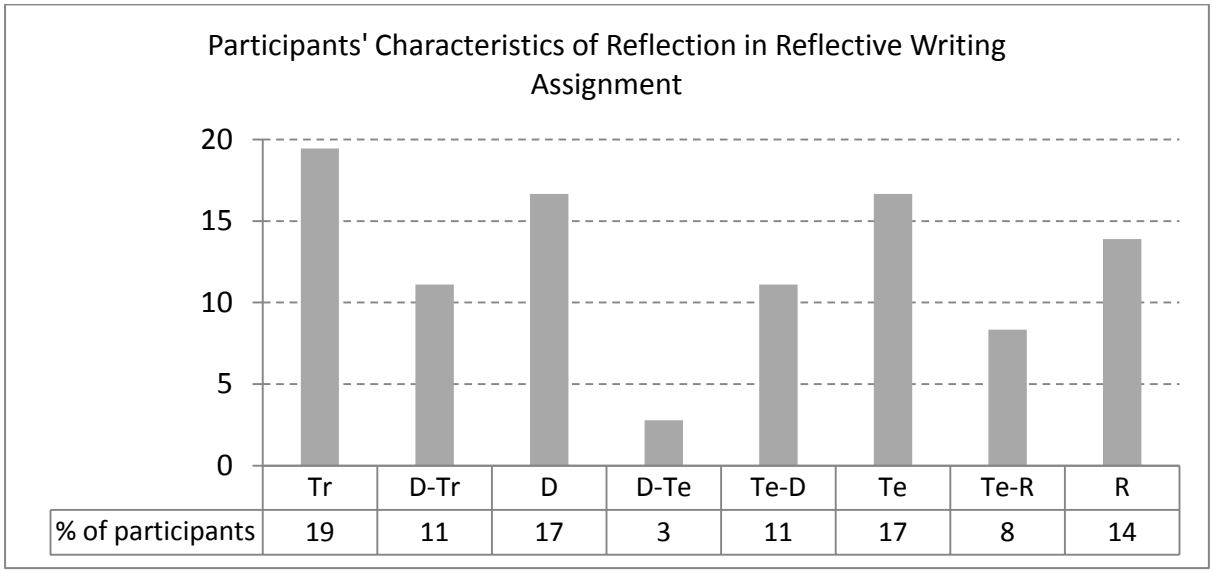
Figure 8.3 Relative frequency distribution of Teachers' Standards mean grades for all participants



8.2.2.3 The judgements against the W&M2 rubric

The analysis of reflective writing samples has been summarised to show the distribution of overall judgements by levels and sub-levels within the rubric in Figure 8.4. Fourteen percent (5/36) of the samples were judged to demonstrate no more than low level (routine) reflection, with nineteen percent (7/36) demonstrating the high level (transformative) characteristics. Precisely fifty percent of judgements were found to lie within each half of the spectrum. It is perhaps important to emphasise that this is not an outcome which had been anticipated.

Figure 8.4 Relative frequency distribution of W&M2 categories for all participants



Key:

Tr	Transformative
D-Tr	Dialogic with some transformative characteristics
D	Dialogic
D-Te	Dialogic with some technical characteristics
Te-D	Technical with some dialogic characteristics
Te	Technical
Te-R	Technical with some routine characteristics
R	Routine

8.2.2 The relationship between assignment and professional standards outcomes

The graphing of assignment and professional standards outcomes in Section 7.6.1 identified a group of participants (labelled Group D) for whom a weak correlation between the two outcomes could be claimed. The correlation coefficient for this group was found to be R^2 = 0.7 (to 1 decimal place).The group included the full range of grades and accounted for sixty-one percent (22/36) of the participants.

8.2.3 The relationship between the W&M2 characteristics and the assignment and performance outcomes

The amalgamation of the assignment outcomes and W&M2 judgements indicated the possibility of relationships between these entities, the nature of which had been unexpected. The data, summarised in Table 8.1, shows that most of the participants (eighty percent or 4/5) who demonstrated the lowest levels of reflection in reflective writing achieved the highest possible overall grade (i.e. a mean grade of 1.0 to one decimal place) for professional performance. This group consists of three students from the English subject group and two from the mathematics group. A discussion of the distribution of outcomes by subject discipline is offered in Section 8.2.4.

Table 8.1 Participants who demonstrated characteristics of 'routine' reflection overall

Subject	Pseudonym	Assignment Grade	Mean of Teachers' Standards	W&M2 Focus	W&M2 Inquiry	W&M2 Insight	W&M2 overall impression
En	DA	C+	1.3	R	R	R	R
Ma	FA	B-	1.0	Te	R	R	R
En	QA	A-	1.0	R	R-Te	R	R
En	EB	C	1.3	R	Te	R	R
Ma	PB	E	2.5	R	R	R	R

Table 8.2 Participants who demonstrated characteristics of 'transformative' reflection

Subject	Pseudonym	Assignment Grade	Mean of Teachers' Standards	W&M2 Focus	W&M2 Inquiry	W&M2 Insight	W&M2 overall impression
Sc	MA	D-	1.0	Tr	Tr	Tr	Tr
En	OA	C	1.4	Tr	Tr	Tr	Tr
Ma	PA	D+	1.9	Tr	Tr	Tr	Tr
En	RA	C-	1.6	Tr	Tr	Tr	Tr
Ma	SA	C-	1.3	Tr	Tr	Tr	Tr
En	JB	D+	2.3	Tr	Tr	Tr	Tr
En	RB	D	1.3	Tr	Tr	Tr	Tr

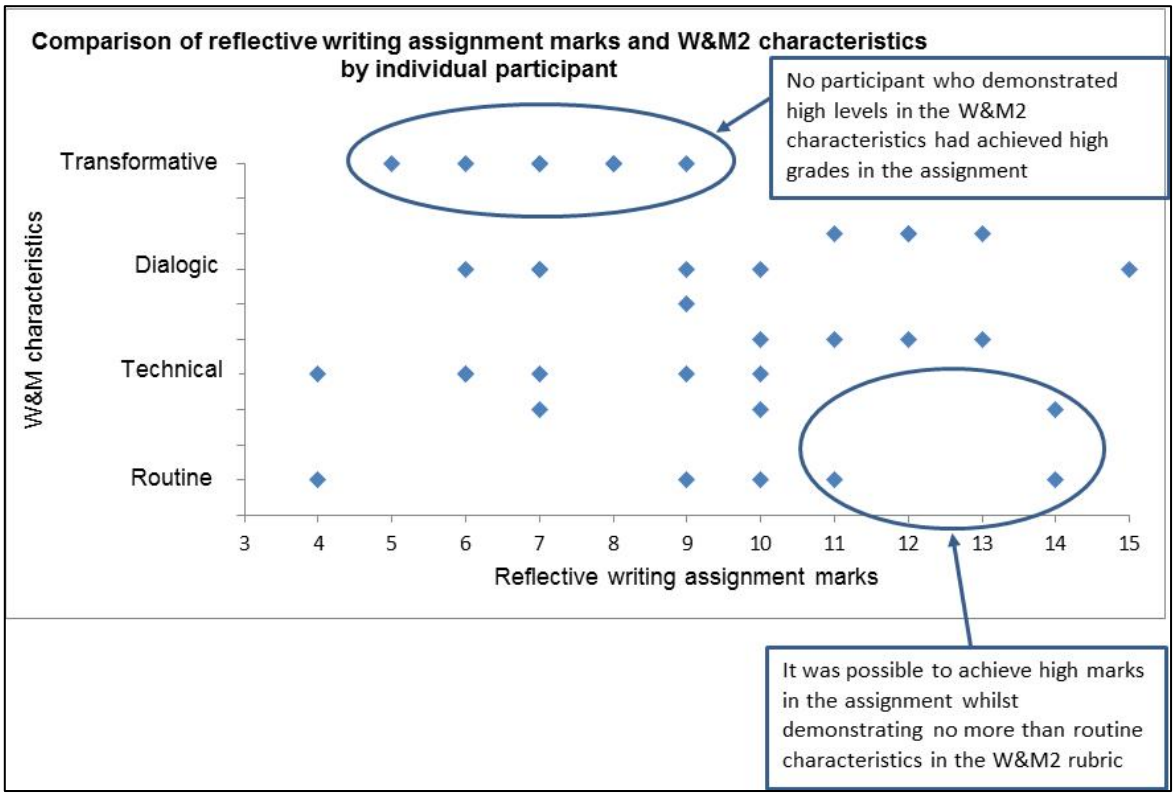
The distribution of W&M2 characteristics across the subject disciplines is shown in Appendix 20 and is discussed in Section 8.2.4.

Whilst those who demonstrated high levels of reflection (see Table 8.2) were found to achieve across the spectrum of professional grades, the grades for the academic

assignment were generally low, with no grade higher than C. In comparison, all but one of the 'routine' group (4/5) had achieved C or better for this assignment.

The relationship between assignment grades and W&M2 characteristics was further investigated as shown in Figure 8.5.

Figure 8.5 Distribution of W&M2 categories by comparison with assignment marks

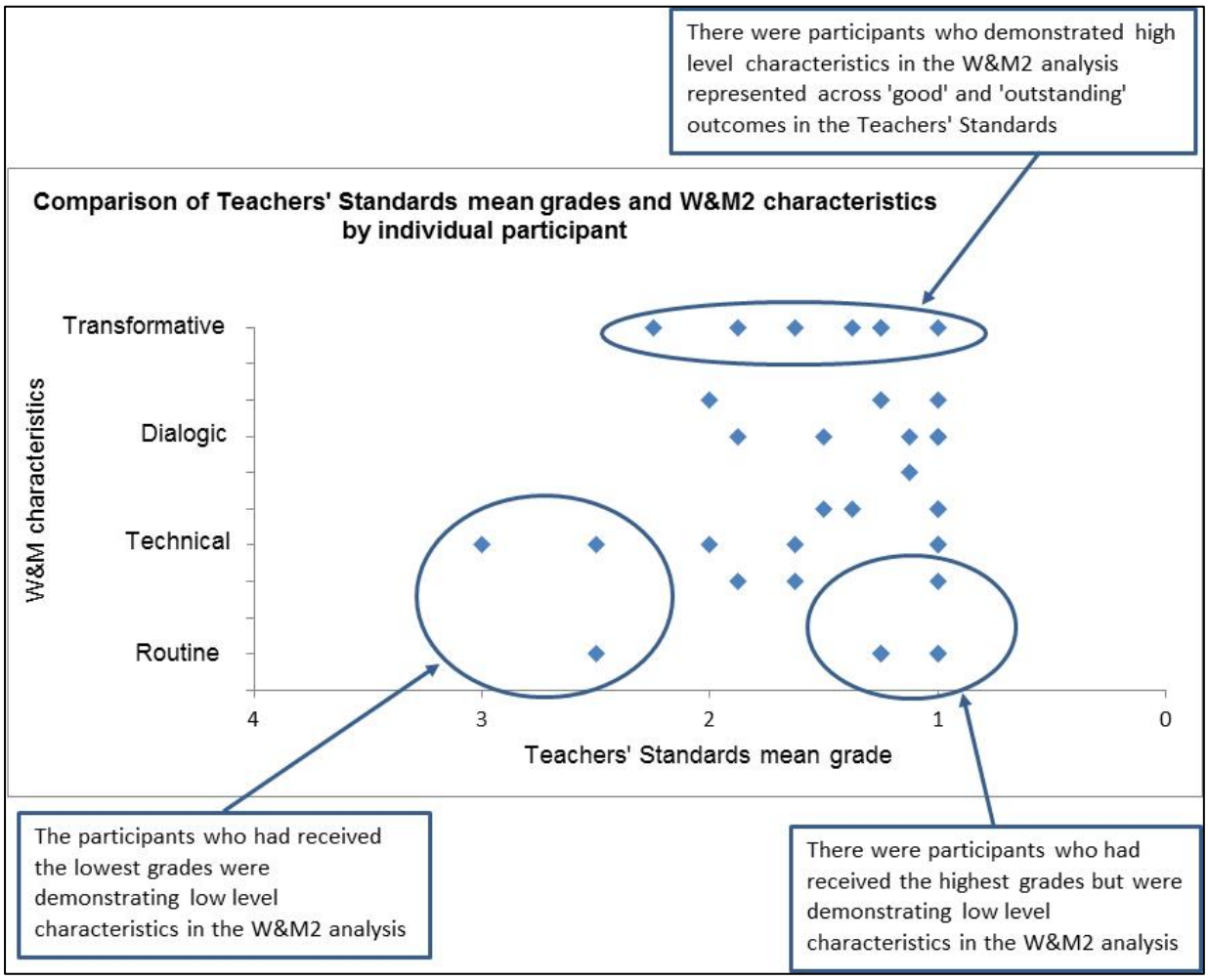


The mapping shows that dialogic, technical and routine characteristics are distributed across all assignment outcomes. The same is not true of the transformative characteristics, which are found only in the lower attaining assignments (Grade C+ or lower). In addition, there were participants who had achieved high grades in the assignment and had been judged as demonstrating only routine characteristics.

A similar mapping of W&M2 characteristics to the participants' Teachers' Standards mean grade, shown in Figure 8.6, also showed that there were participants who achieved high grades in relation to the Teachers' Standards whilst demonstrating only routine characteristics using the W&M2 rubric. However, the participants who demonstrated transformative characteristics were not represented in the lower Teachers' Standards grades. In possible alignment with that observation, the participants with lower Teachers'

Standards outcomes were found to have demonstrated only routine or routine-technical characteristics.

Figure 8.6 Distribution of W&M2 categories by comparison with Teachers' Standards mean grades

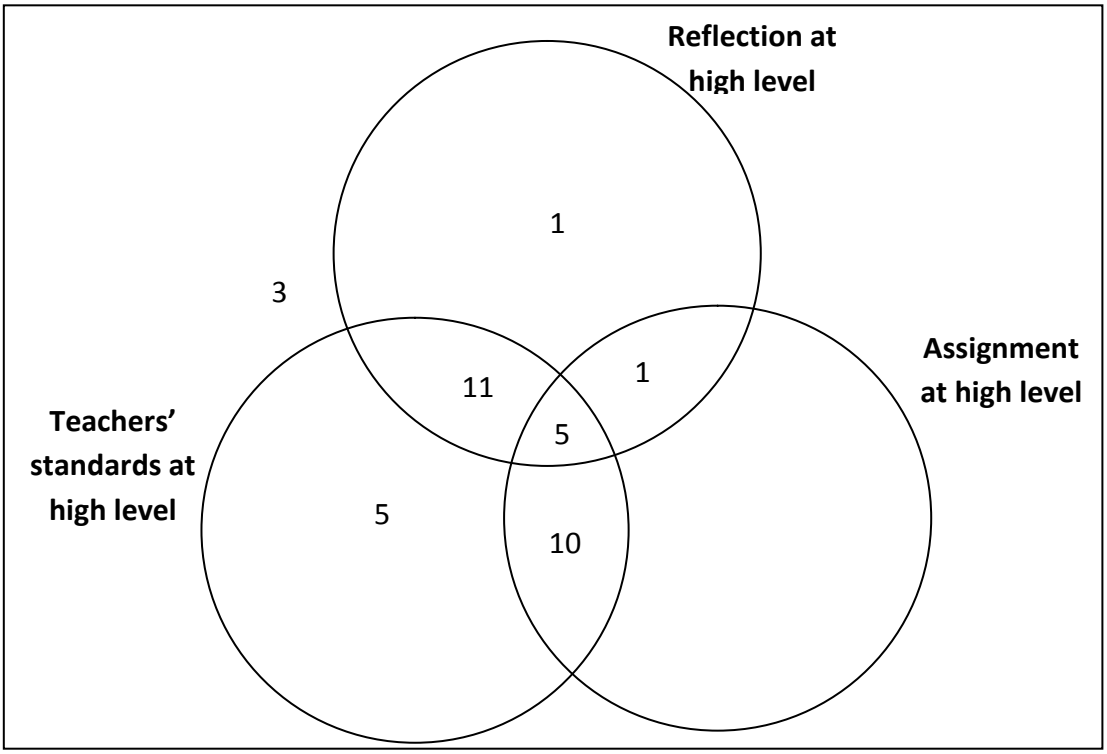


The exploration of this data also served as a reminder of the complexity of any relationship between these factors and drew attention to the model of that relationship which was developed in Chapter 6 (Figure 6.1).

The Venn diagram of Figure 6.1 was subsequently applied as an organisational tool for the characteristics of the participants as shown in Appendix 23 and summarised in Figure 8.7.
In the diagram, reflection has been categorised as 'high level' where the reflective writing extract demonstrated characteristics of dialogic and/or transformative reflection, attainment in the Teachers' Standards has been categorised as 'high level' where the professional performance had been defined as 'good' or better and achieved a grade of two or better and

the category 'assignment at high level' refers to reflective writing assignments which were graded as better than C i.e. more than nine marks.

Figure 8.7 Venn diagram showing outcomes in all three areas



In interpreting this model it is necessary to forefront again the recognition that the majority of participants had been graded as 'good' or better in relation to the Teachers' Standards, hence the dense population of the intersections with the 'high level' Teachers' Standards section. What is also apparent from this diagram, however, is the proportion of participants (83 percent or 30/36) who are located within intersections (27 inside the rings and 3 outside), representing a connection between the aspects. The participants who demonstrated strength in precisely one aspect are JB, EA, JA, KA, EB and OB. Their cases are considered in more detail below.

8.2.3.1 The case of JB – transformative reflection and comparatively low attainment

JB was judged to have demonstrated transformative reflection whilst achieving a lower grade than most, with a mean grade of 2.3, in the professional assessment and in the academic assessment, having achieved seven marks or grade D+. It is of note that, although the mean professional grade of 2.3 is lower than that of the majority of other participants, it does satisfy the descriptors for a 'good' graduate teacher. Furthermore, JB is included in Group D, the group of participants for whom a relationship was proposed when applying the correlation model of 8.2.2. The extent to which JB has progressed since beginning the

course is not evident here and it is possible that the amount of change may be equivalent to, or greater than, that of other participants.

8.2.3.2 The case of 'good' teachers with low levels in the assignment or in characteristics of reflection

Five participants (EA, JA, KA, EB, OB) achieved a mean professional grade of 2.0 or better without demonstrating strengths in the other aspects, as shown in Table 8.3.

Table 8.3 Participants who demonstrated 'good' professional performance without high achievement in other areas

Group A-D	Subject	Pseudonym	Assignment	Mean Teachers' Standards Grade	W&M2 Focus	W&M2 Inquiry	W&M2 Insight	W&M2 Overall
D	Ma	EA	7	1.6	R - Te	Te	Te	Te-R
D	Sc	GA	9	1.6	Te	Te	Te	Te
D	En	KA	6	2.0	Te	Te	Te	Te
D	En	EB	9	1.3	R	Te	R	R
B	En	OB	4	1.0	Te	Te	Te	Te

This group is of particular interest as they appear to support the theory, espoused by some, that there are student teachers who are effective teachers but have not been successful in communicating the ways in which they are effective in written form. In addition, their 'reflective writing' has not communicated high levels of reflection when evaluated using the W&M2 criteria, which may challenge the theory that good teachers are able to articulate the ways in which they are effective.

8.2.4 The distribution of outcomes across the subject groups

The perception that student teachers from 'hard' subject disciplines such as mathematics and sciences (Fry, Ketteridge and Marshall, 1999) may be disadvantaged due to the relative inexperience of academic writing when compared to students in the 'soft' subjects is one which is often articulated by students in those 'hard' subject groups in my experience and that of the sciences tutor. Due to the small and unequal number of participants in each subject group, the analysis by subject offers only observations about the characteristics of each group but finds nothing to support the view of advantaging of the English students and, in contention with the perception articulated, some indicators that the mathematics and sciences students achieved higher levels. The tables and charts are provided in Appendix 24 and observations from that analysis are noted below.

8.2.4.1 The distribution of assignment grades across the subject groups

There is no common pattern in the spread of outcomes in each of the subject groups. However, no inferences are claimed about patterns of achievement in the three disciplines, due to the small number of participants. Only one student from the English group achieved a grade of higher than C+ compared to seven mathematics students and three sciences students. It is important to emphasise, here, that this unit was taught in mixed subject groups, and the assignments were assessed by tutors with a range of subject specialist backgrounds. Hence there is no indication of variation in support of latent criteria due to subject discipline.

8.2.4.2 The distribution of Teachers' Standards grades across the subject groups

The relative frequencies of grades were similar for the English and mathematics groups. There is an impression of less variation within the sciences group when considering the coarse grades, but this is less evident when the mean grades are explored, with equal proportions of all three subjects achieving grades of 1.0 or 1.1. It is noted that the use of relative frequencies for the comparison of groups where group sizes are small must take into account the apparent significance of small differences. Hence it is concluded that there is little to support a conclusion of variation due to subject discipline.

8.2.4.3 The distribution of W&M2 characteristics across the subject disciplines

Approximately half of each subject group demonstrated characteristics of 'transformative' and/or 'dialogic' reflection in the samples analysed. At the other end of the spectrum, both English and mathematics groups included students who had demonstrated characteristics of no more than 'routine' reflection. The absence of any representation of the science specialists in this category is noted but, again, due to the small number of science participants, does little to support a discipline-based distinction in the capacity to demonstrate reflection through reflective writing. Again it is concluded that there is no evidence to indicate that subject specific skills or knowledge contribute to the capacity of an individual to communicate levels of reflection through the written assignment.

8.3 Analysing and evaluating the assessment guidance and criteria

The aim of this section is to identify aspects of the assessment guidance and criteria which may have influenced participants' engagement with the reflective writing tasks and/or determined the grades awarded. The analysis of these documents has been organised using the three strands and the central intersection of the Venn diagram of Figure 6.1 and,

therefore, addressing professional requirements, academic requirements, reflective practice and integrating the three.

8.3.1 Satisfying professional requirements

The professional requirements for recommendation for Qualified Teacher Status are defined by the Department for Education in the *Teachers' Standards 2012* (DfE, 2012b). The standards are predominantly procedural, specifying the set of behaviours which are expected of all qualified teachers in England. Examples are "establish a safe and stimulating environment"; "foster and maintain pupils' interest"; "impart knowledge"; "manage classes effectively"; etc. (*op. cit*.) Among the standards are some which require teachers to demonstrate "knowledge and understanding", for example "of how pupils learn"; "of subject and curriculum areas"; and "how a range of factors can inhibit pupils' ability to learn", and one which requires them to "reflect systematically on the effectiveness of lessons". (*op. cit*.)

In order to exemplify the characteristics of a graduating teacher who is satisfying these professional standards, UCET/NASBTT/HEA developed a set of descriptors (UCET, 2012) which could be used by providers of programmes of ITE and these descriptors were adopted by this institution as the criteria by which the professional achievement of student teachers would be assessed. The programme requires students to self-evaluate and track progress against these descriptors and requires mentors to track progress and to assess student achievement at pre-determined points (Profile Review Points or PRPs) during the year. The PRPs are described as an evaluative discussion between mentor and mentee. Hence there is an expectation of reflective dialogue prior to the final judgement. The nature of this dialogue has not been explored within this study because of the focus on the design of the reflective writing assignment. However, the potential influence of this aspect of the students' experience on the attitude to the assignment and on the relationship of the outcomes is acknowledged and is addressed in the development of the theoretical model in Chapter 9 and in the proposal for a further cycle of action research in Chapter 10.

8.3.2 Satisfying academic requirements

In considering the influences on reflective practice arising from the academic requirements of the course, the assignment specification was analysed and key themes were identified as the specification of content and support for progression.

8.3.2.1 The specification of content

The combined effect of the assessment task description and the assessment criteria is to prescribe the content of the reflective writing in detail. Although this study has not

researched the motivations or rationale for this specification, there are continuous threads in the task and criteria (Appendix 1) of synthesis of theories from a range of sources with experience from practice and of self-evaluation in light of that synthesis.

The learning outcomes for the unit which were assessed through the reflective writing assignment are specified in the assignment briefing document and are shown in Table 8.4.

Table 8.4 The learning outcomes to be assessed through the reflective writing assignment

1. Demonstrate critical awareness of the implications of theories about child development and pedagogy for the management of learning and behaviour and implement these in your teaching practice.
2. Synthesise information and ideas about issues relating to equality, diversity, inclusion and personalisation to develop new approaches in your teaching and relationships with learners.
3. Demonstrate systematic understanding of the ways in which assessment can promote or hinder learning, and apply that understanding in the selection and/or design of assessment which supports learning.
4. Independently evaluate your role and responsibilities in relation to the Every Child Matters agenda and demonstrate autonomy in embedding the principles within your teaching.
5. Collaborate effectively with professional colleagues in order to secure the learning and development of your pupils.
6. Reflect purposefully and critically on your reading, teaching experiences and feedback from others, systematically evaluating outcomes and formulating and evaluating original proposals which address your learning needs.

The assignment briefing document details the tasks which must be completed in order to 'pass' the unit and the criteria by which the achievement will be measured. The learning outcomes integrate reflection with practice and the introduction to the task develops this notion, setting an expectation for the student to use "two interrelated aspects of your development [reflective writing and placement experience] to demonstrate your development as a professional teacher" and to "draw together the various elements of the course and provide an integrated overview of the progress you have made".

The briefing further specifies the content of the reflective writing, requiring students to

> "make effective connections between the theories and ideas made available to you during the course, and the application of those ideas in practice [,] to analyse reading; relate the ideas from the reading to your experiences in practice; and make your own assertions about effective learning and teaching".

In providing more detail, the briefing later requires the students to

> "select one or two areas [of practice] and explore aspects in which you have made progress and subsequent ideas relating to how you might progress this aspect further. You should ensure that you include analysis of incidents from your practice and selection and review of relevant reading and consideration of ways in which these are interconnected."

The assessment criteria subsequently set out the requirements to evaluate "recent and current research and its impact on own practice", "own classroom [and] ideas about the ways in which learners learn", "learning from the course" and "areas for own development". There is a requirement for "self-awareness" and a "review of strengths and weaknesses".

One possible interpretation of the combined requirements of the task description and assessment criteria is a list of isolated sections to be covered and, during the analysis of the reflective writing, examples were noted of itemisation or listing of activities completed or achievements claimed, with a resultant focus on self at the expense of reflecting on developing pedagogy. EA, for example, systematically addresses theories about learning, ideas from a range of reading, learning from the course, examples from practice and targets for future development. The ideas are integrated insofar as they address a common theme, first behaviour management and then creativity, and that a connection is made between the two themes. However, although many of the content requirements have been satisfied, the absence of any evaluation of impact on learning results in a reflection which is removed and abstract. The assignment was graded D+, indicating the absence of synthesis and critical analysis. This observation highlights the need to consider the extent to which the academic assignment influences progression from lower to higher levels of reflection.

8.3.2.2 Support for progression

The reflective writing assignment was organised into two units, each containing one formative and one summative assessment point. The assessment criteria were used to provide feedback about progress at each point, with the weighting of the outcome increasing progressively through the four points. In this way, students were provided with information about the level of their work in relation to these criteria. This feedback was supplemented by a tutorial meeting, providing an opportunity for dialogue. Through written and verbal feedback it was expected that students would be supported to identify ways in which they could improve outcomes in subsequent submissions. The briefing describes "formative assessment at intervals during the course, to support you in understanding the requirements of the task and knowing how to improve". However, neither the nature of the feedback, the scope of the dialogue nor the responses of the students to the feedback have been included within the focus of this study. The important place of dialogue in developing reflection and

reflective writing is considered further in Section 8.6 and in the subsequent development of the theoretical model in Chapter 9.

8.3.3 Demonstrating reflective practice

The W&M2 rubric, used for the analysis of samples of reflective writing, was not an influence in the development of reflection or practice but was used within this research to make judgements about the levels of reflection demonstrated in the writing of the participants. During the application of these criteria, dilemmas and points of debate were noted, with the subsequent decisions justified. These were set out in Section 7.3 so that, through a process of comparing, contrasting, reasoning and justification of judgements made there is confidence in the reliability and repeatability of the findings from the analysis using the W&M2 rubric. In the dialogue between myself and my colleague there were common themes and shared experiences. Of particular note was the shared affective response to one extract (KA), in which it was felt that the author had shown indication of potential to develop dialogic or transformative reflection but had 'stalled'. My colleague described frustration and a desire to intervene and support KA to progress her/his reflection further. In the discussion about intervention and scaffolding for further development, it was agreed that the W&M2 rubric could provide the basis for that tutorial activity, in the manner suggested by Ward and McCotter (2004:255) and Lee (2005:713). The colleague articulated a journey from top left to bottom right of the rubric, addressing 'focus' first and progressing to ‘inquiry’ and then ‘insight’. This differs from the view of Ward and McCotter (*ibid.*), who positioned their original dimensions of ‘focus’, ‘inquiry’ and ‘change’ as three concurrent strands of development.

The following observations summarise the themes arising in the application of the W&M2 criteria.

8.3.3.1 Routine reflection

The samples which were categorised as ‘routine’ overall were characterised by the absence of indicators of higher level reflection rather than by what was present. In particular, it was the absence of personal response which resulted in a judgement at this level, as exemplified by this comment about the work of DA: “Mostly characterised by what is absent rather than what is there. It would be hard to give feedback to this student through written annotation. A face to face tutorial would be required.” In the following extract, the author appears to disregard the possibility of the need for personal change and to focus on controlling the students:

> "Firstly the students were either not used to this or did not like the method of teaching and secondly with the time restrictions it was not always possible […] However as the term has progressed I have developed a rapport with my classes that has enabled them to trust the tasks I am giving them, almost training them to accept some of the more abstract concepts I have set them as starters or plenary activities."
>
> (DA Reflective writing)

A further observation is that the use of academic language and style can result in a sense of distancing and an analysis which is 'definitive and generalised' (criteria for 'routine inquiry'), as is illustrated in this extract from FA's work.

> "Often, when I have approached a pupil who is off task (and perhaps disruptive as a result), they tell me that they "can't do it". This may be indicative of these pupils having an 'entity view' as per Dweck's (2000) self-theories of learning. She finds that pupils with an entity view are at risk of underachieving because they do not challenge themselves and from what I interpret, lack in self-confidence. Dweck favours an 'incremental view' and to try and encourage this in pupils I try to instil confidence in them, motivating them to 'have a go' so that they can make achievements and reach their potential. Pollard (2008) notes praise as one the principal factors affecting pupils' confidence in their ability to learn and I try to be encouraging with praise but want to work on being more specific about what the praise is for. I plan to do this using the ideas of Vosniadou (2001, p.27) who suggests: making it more of an evaluation of learners' performance; attributing achievement to internal rather than external factors (e.g. 'you have good ideas'); helping pupils believe in themselves.
>
> (FA Reflective writing)

This paragraph, which satisfied the criteria for a very high academic grade, obscures the underlying reflective practice which is likely to have preceded the conclusions reported here. Hence, in seeking to be objective and transparent in the application of the W&M2 rubric, there may be a failure to acknowledge characteristics of the individual. This raises important questions. The first of those questions is about the place of 'latent' and 'meta-criteria' (Wyatt-Smith and Klenowski, 2013), whether they may be important and how they may be used in a fair and transparent way. A further, equally important, question relates to the use of the written submission as the sole source of indicators of reflective thinking. A third question arises from the recognition that the reflective writing assignment is a product which captures an image or representation in response to a specific set of criteria at a fixed point of time, whereas the characteristics of reflection may be more appropriately associated with the process through which that product was created. These important questions will be revisited in Chapters 9 and 10.

8.3.3.2 The 'Inquiry' row

The descriptors in the 'inquiry' row refer to "questions" about practice. In applying these criteria it became necessary to interpret 'asking questions' as personal theorising. In the following example, one brief extract from an extended discussion, HA demonstrates how the testing of ideas in practice has resulted in further ideas forming.

> "I think working with Pupil (BS) has enabled me to assess how I challenge pupils with a form of mental or physical disability. I think this has suggested to me that within attainment levels, there should be some provision for pupils, such as Pupil (BS) to be appropriately challenged. This is supportive of the views Cockcroft (1982) holds regarding the pace of individuals."
>
> (HA Reflective writing)

The inquiry row also requires evidence of 'long-term ongoing inquiry' as a criterion for 'transformative' reflection. It was difficult to find evidence of 'long-term ongoing inquiry' within a single 1000 word submission and it was felt that sustained engagement with an aspect of practice over time may be better evidenced through a reflective log or reflective dialogue. This observation is discussed further in Chapters 9 and 10. However, a useful characterisation of this criterion was evidence of the evaluation of past and present practice and theorising about future practice. This is exemplified in the following extract:

> "Another strategy that I could use to meet this target would be to differentiate the questions that I am planning, as differentiation is another related area that could be improved. This would have been prevalent in a recent Year 9 lesson, where I planned for students to start making comparisons between a short story and two poems studied in previous lessons. However, the questions that I had planned for the students to answer were not allowing all students to progress through the learning, as they were not stretching the higher ability students as effectively as they could. Yet if I had differentiated the questions, as well as planned for a progression through Bloom's Taxonomy, this drawback to the lesson could have been averted. As for a more long term goal for how I could improve student progression, I could start to incorporate and experiment with setting up "*proactive consulation*" (Thompson, P., 2009, p.676)"
>
> (JB Reflective writing)

A third observation about the inquiry row is the requirement at the higher levels for seeking the perspectives of, or engaging with, "students, peers and others". Whilst the word in the criterion is "and", establishing a requirement for evidence of each, the sense in the overall descriptor for the 'dialogic' and 'transformative' strands is that of responsibility to consider others' perspectives without specifying who 'other' is. Hence the decision was made for this analysis to adopt the general principle rather than to adhere to a requirement for consultation with all 'others' listed. This often meant that consideration of pupils'

perspectives was absent, with the specific requirement for evidence of a focus on students and evaluation of impact on them to be considered as separate from 'consulting with' them.

8.3.3.3 The 'Insight' row

A further dilemma arose in the application of the words "responsibility" and "whole-hearted". The debate here was not about the interpretation of the words, but about the need to interpret the intentions of the author in order to judge the level of willingness to engage in self-evaluation and scrutiny. It was helpful to link this to the extent to which practice was deconstructed. Hence the summary comment for MB, noted "Some evidence that inquiry is ongoing but examination of incidents is not detailed and there is insufficient evidence of whole-hearted scrutiny". Once again, what becomes evident is a need to make a judgement about what was intended rather than what was written and the issue of assessing qualities of a dynamic process through a static product (See Chapters 9 and 10).

8.3.4 Integrating the three strands

The analysis of the assessment criteria rubric in Section 7.2 located Dewey's (1933) stages of reflection embedded within the descriptors. Hence there is some claim that the development of reflective practice has been integrated within activity to satisfy the academic requirements. Similarly, Section 8.3.1 noted an expectation of reflective dialogue between the student and mentor in the evaluation of professional achievement, although the nature and content of this dialogue is, at this point, unexplored. These observations indicate that there is an expectation of integration of reflection within the assessment strategy, as a part of each aspect of the assessment of student achievement. Furthermore, the unit assessment briefing sets out an expectation that the student will reflect and evaluate self in relation to both professional and academic progress. Hence there is an espoused intention that the three strands of academic, professional and reflective practice are integrated within the assessment strategy.

8.4 Exploring student perceptions of reflective practice and reflective writing tasks

The objective of this phase of the data analysis was to explore student perceptions of reflective practice and reflective writing tasks in order to gain insights into the influence of the assessment tasks on their learning and their practice as teachers and thereby begin to answer the research question: What are the factors which influence student teacher

engagement with the reflective writing tasks which are compulsory elements of their teacher education programme?

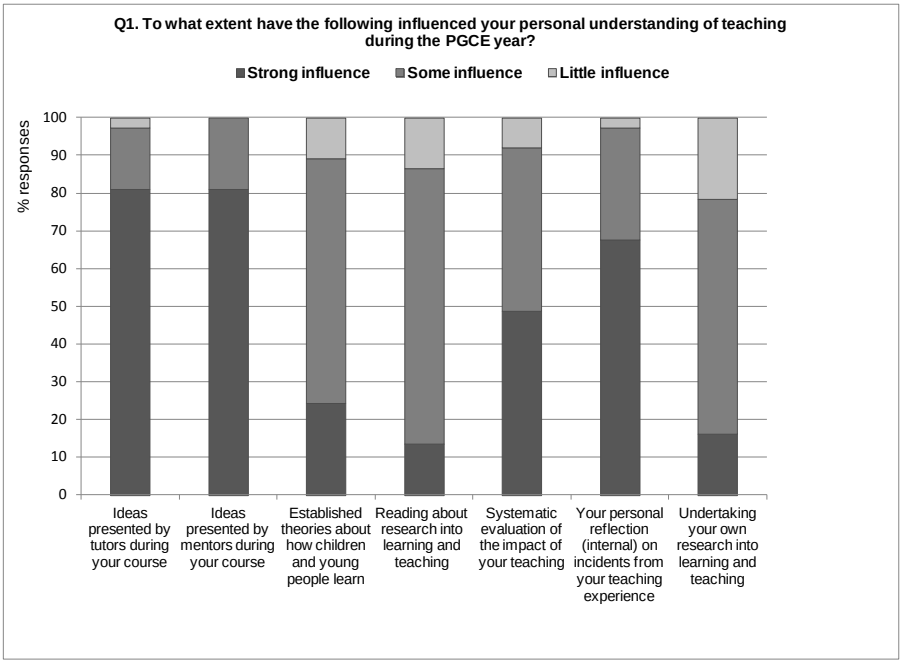
The questionnaires were designed to gain insights from student teachers about their experience of engaging with the reflective writing tasks and the influence, from their perspectives, of the assignment tasks on their reflection and on their practice as teachers. The participants were offered anonymity to encourage frank and truthful responses in order to gather real insight into their feelings and judgements about the tasks. The majority of participants declined the offer of anonymity.

8.4.1 Overview of the participant responses

The responses to questions 1, 2, 3 and 5 are summarised in Figures 8.8 – 8.10 inclusive.

Question 1 was designed to explore the perceptions of participants about the influences on their development as a teacher in order to gain an insight into the 'germs' (Dewey, 1933) which, in their experience, caused them to reflect on their teaching.

Figure 8.8 Responses to questionnaire - Question 1

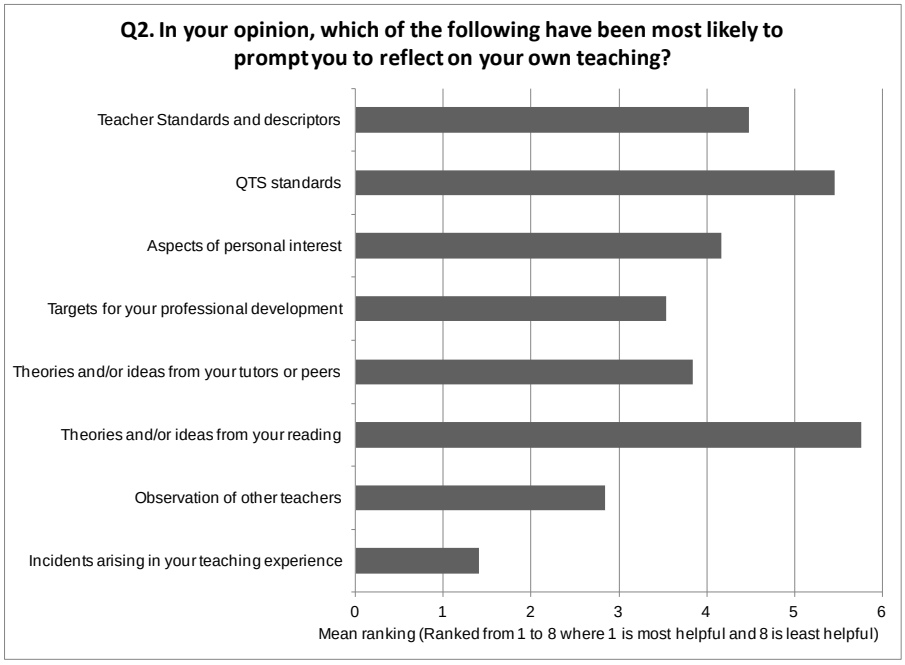


The strongest influences were the theories of others and experiences in practice, with 81 percent of participants viewing the ideas presented by tutors and mentors as strong influences. Personal reflection and evaluation were also key influences, with 68 percent viewing personal reflection on incidents from their own practice as strongly influential and 49 percent viewing evaluation of the impact of their teaching as a strong influence. Although no

participant identified a factor which had no influence, the influence of theories about learning, reading and research were viewed as less influential. A further point of note is the one participant (SB) who viewed both personal reflection and evaluation of practice as having little influence on her/his understanding of teaching whilst placing ideas from both tutors and mentors and as strongly influential. SB achieved a high grade (A-) in the academic assignment and a mean professional grade of 1.9 ('good'). Her/his reflective level was judged to be Technical-Routine. One possible interpretation is that this individual adopted an algorithmic approach to her/his work, implementing a set of procedures and seeking direction from those who would ultimately make the decision about levels of attainment, without attempting to theorise or question. Furthermore, the outcomes for this individual can be seen to endorse such an approach by marking it as a 'success'. This notion is considered further in Section 8.7.

Question 2 seeks to learn more about what causes student teachers to engage in reflection on their practice. Participants were asked to rank the prompts from 1 (most helpful) to 8 (least helpful). The mean rankings for each prompt are summarised in Figure 8.9.

Figure 8.9 Responses to questionnaire - Question 2



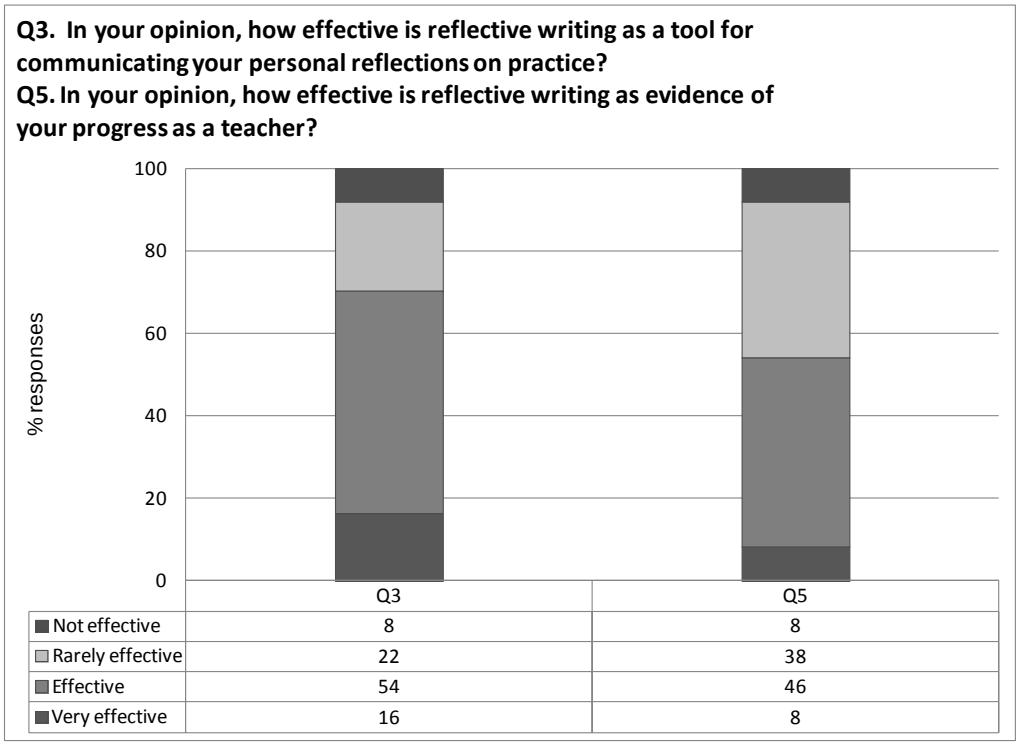
The most highly ranked (lowest in numerical value) prompt for reflection on teaching was 'incidents arising in your teaching practice', with 81 percent of participants ranking this first. 'Observation of other teachers' was also highly ranked, with 64 percent of participants ranking this prompt as first, second or third, and 58 percent ranked 'targets for professional

development' as first, second or third. There is support here for Mason's (2004) view that professionals find themselves reflecting, both 'in the moment' and later, on aspects of their own practice, but also that by marking selected aspects for attention, through dialogue or other interaction with others, those marked aspects can become a focus for reflection.

One participant (MA) ranked all prompts as one. MA demonstrated 'transformative' reflection characteristics, was graded as 1.0 in the professional assessment and graded as D- in the assignment. MA appears to support the view reported previously that the assignment may not be representative of professional capability. A more concerning interpretation may be that the three aspects are not aligned for this participant i.e. that reflective practice and professional efficacy are working in opposition to the requirements of the assignment. The observation that alignment may be specific to an individual, rather than a generalisable characteristic of the course, is a new insight which will be addressed in Chapters 9 and 10.

Questions 1 to 6 inclusive were designed to explore the participants' perceptions of reflective writing. Positioning these questions after those which focussed on influences on reflection (Questions 1 and 2) was intended to encourage consideration of reflection separately from reflective writing. However, some of the free-text responses indicated that this had not always been successful, as will be seen below. The responses to Questions 3 and 5 are summarised in Figure 8.10

Figure 8.10 Responses to questionnaire – Questions 3 and 5



Seventy percent of participants indicated that reflective writing is an effective or very effective tool for communicating their personal reflections on practice and fifty-four percent viewed their reflective writing as evidence of their progress as a teacher. Five percent (two participants – SB and TB) answered 'not effective' to both questions. TB was a participant who had not authorised identification. Hence it is not possible to explore the profile of outcomes for this participant. SB, discussed in the overview of responses to Question 1, has indicated that reflection and evaluation have little influence over her/his development as a teacher. From the responses to Questions 3 and 5 it can be seen that s/he also views the reflective writing as having little connection with her/his achievements.

Questions 4 and 6 invited textual responses to supplement the Likert scale responses to Questions 3 and 5 respectively. Four key themes were identified in these responses and are explored in detail in Sections 8.4.2 – 8.4.5 inclusive. The themes are: the contribution of reflective writing to development of practice, barriers to reflection, interpretation of the assessment intentions and suggestions to improve the assignment. The comments of PA effectively capture the overall impression from these responses.

> "Personal reflection is a key element of teacher practice, so should certainly be considered. Assessing success / failure of ideas will shape future progress & new areas of focus. My only concern is that some trainees may be effectively reflecting & progressing but struggle to articulate this in a written form - should only be used in conjunction with mentor assessments / verbal feedback."
>
> (PA response to question 6)

8.4.2 The contribution of reflective writing to development of practice

Nineteen participants made comments which confirmed that, in their views, engagement in the reflective writing tasks had contributed in some way to their development. Six specific ways in which the tasks contributed have been exemplified. Giving time and/or space to reflect was identified, with RB commenting that "Reflective writing was effective at providing a place for reflection". Encouraging depth of reflection was indicated by comments such as "it helped me to think deeply" (LB), "with sufficient time [...] it can act as an efficient tool for provoking deep reflections" (GB), and "makes you not only reflect but look deeper into the issue" (FB). Directing attention to priorities for improving practice was exemplified by LA's comment that it "forced me to consider aspects of my teaching which I perhaps wouldn't have done through general evaluations". There was affirmation that the assignment had contributed to making connections between theory and practice, with comments including: "provides a good opportunity to make more connections between theory and practice" (HA), and "look deeper into the issue and encourages you to read around the topic/issue" (FB).

Contribution to the evaluation and improvement of practice was indicated, with TA commenting that it "encouraged me to evaluate my teaching and the students' learning. It was extremely useful in improving my practice". Other comments included "raises attention to areas of development and therefore prompted me to view theories and research which could improve my practice" (SA), and "very useful in evaluations and future targets" (EA). Comments were also made which noted the use of the assignment as an organiser of thinking, such as JA's observation that it "helped focus evidence in a useful document" (JA), LA's comment about organising evidence, "effective based on the linked documents" (LA), and AA's observation about target setting, "helped set future targets" (AA).

8.4.3 Barriers to reflection

Twenty participants indicated that aspects of the task had hindered reflection. Six categories of barrier or area of constraint or anxiety were identified: the specification of foci for reflection, the word allowance and timing, the assessment criteria, concerns about 'getting it right', concerns about written communication skills and perceptions of relevance.

8.4.3.1 The foci for reflection specified within the task

Respondents felt that the prompts for reflection were out of alignment with natural sources of germs for reflection. Comments included: "some of the tasks were not applicable to my practice" (UB), "tasks [...] varied from very vague to far too specific" (RB), "questions/prompts were too limiting" (MB), "created a need to tailor a lesson specifically to them" (JB), "I was concentrating more on finding a relevant experience to write about [...] than I did reflecting" (FA), "not always appropriate with the teaching I had been doing" (BA).

8.4.3.2 Word allowance and timing

Three respondents viewed the word allowance as an inhibitor of reflectivity, indicating that the challenge of meeting the criteria within the specified word allowance prevented them from exploring "any ideas in real detail" (TB). DB and PA viewed the requirement to link experience with theoretical perspectives as "constraining and artificial" (DB). GB expressed similar concerns about the time for reflection, commenting that "With sufficient time allocated for reflective writing it can act as an efficient tool provoking deep reflections. However, time constraints can act as a barrier to the process".

8.4.3.3 Assessment criteria

Two respondents (DB and PA) expressed concerns about the challenge of satisfying complex criteria which specify the content of the writing, requiring the author to "cover how

learners learn, how the course has helped, references to literature as well as a detailed reflection of the particular incident" (PA).

8.4.3.4 Concerns about 'getting it right'

There was frequent reference to feelings of anxiety about meeting the expectations of the assessors, commenting that "It is quite hard to know how the university wants you to write reflections" (EA). Respondents commented "a clearer guidance to the structure would be helpful" (DA), "I may have been able to portray this better with more modelling of what to do" (NB), and "more examples and help with how to structure the writing would have been beneficial as it is not like anything we have ever written before" (NB). For FA there was a perception that "trying to meet the marking criteria" was in opposition to reflection and for PB a concern about "how we prove the reading was completed".

Given the personal investment in reflective writing, it is possible that these students had experienced disappointment at formative feedback received earlier in the programme, as Winter (2004) noticed in her students:

> "There are real problems in courses like this in trying to align our academic expectations with the growth we want students to have through experiencing writing pieces of work they will use in their professional lives. This problem can be serious indeed if the work is graded. I know students can feel hurt when very personal work, in which they have invested some self-examination and even taken risks in expressing themselves in new ways, receives a mediocre grade. Their emotional response can be quite damaging."
>
> (p.268)

8.4.3.5 Concerns about written communication skills

Three respondents were concerned that weaknesses in their competence with academic writing could limit their capacity to communicate the quality of their practice or reflectivity. SB wrote "I find it hard to write although I think about it all the time" and FA "I do not communicate most effectively through writing". For MB this concern was used to explain a procedural approach to the task whilst acknowledging that it was in opposition to the intended activity. "I reflect on my practice daily, as I do in all other aspects of my life, but as a person who finds writing and structuring work difficult, I found that this became a 'box ticking' exercise rather than encouragement to reflect." (MB)

8.4.3.6 Perceptions of relevance

One participant (KB) had not found value in referring to theories. "I enjoy writing them, but having to link random theories to them was a bit of a waste of time and didn't enable deeper

reflection". KB's responses to other questions in the questionnaire indicated that, whilst ideas of mentors and tutors were considered 'strongly influential' and reading was considered 'influential', theories about learning were considered to have 'little influence'.

8.4.4 Interpretation of the assessment intentions

Eleven responses indicated that these students' interpretations of the requirements of the task differed from the intentions of the course developer in designing the task. The responses can be categorised as commenting on two aspects, the timeline for reflective writing and the judgements about progress.

8.4.4.1 Reflection on what has now passed

SB, commenting on the use of reflective writing as evidence of progress, responded "Putting it down is hard and something that happens after thinking (which is when I have already moved on)", implying, perhaps, that the submission may not be indicative of the current level of progress when it is read. Similarly, IA noted that "oftentimes these reflections would be somewhat historical by submission".

8.4.4.2 Responsibility for judging what progress has been made

Eight respondents demonstrated a view that judgements about their progress were the domain of others rather than self. KA, for example, asserted that "observations and PRPs are a better source of evidence with regards to my progress as a teacher". The responses of AA, JA and IB implied the same view. Their concerns were with the validation by others of claims by self about progress and achievements. AA commented "I do not feel that these are read/checked enough to be effective / taken seriously", with IB noting "I am not sure that anyone checks these vigorously enough for them to be a strong piece of evidence for all".

8.4.5 Suggestions to improve the assignment

Some of the responses from the participants were helpful in indicating ways in which the assignment could be adapted to address perceived needs. These comments included theories about the role of dialogue with others and the reliance on written submissions.

8.4.5.1 The role of dialogue

Four respondents commented on the role of dialogue within the development of their reflective practice. HB, OA and PB felt that the assignment could be improved by incorporating dialogue, with HB and OA respectively suggesting that "it would be good if it were communicating to someone other than uni" and "they might work better if we had the opportunity to go through our reflections with someone", whilst PB "[believes] a discussion

with mentors/PT/other PGCE students would be more effective". PA's view that reflective writing "should only be used [as evidence of progress] in conjunction with mentor assessments / verbal feedback" is perhaps linked to the notion of accountability for judgements discussed in Section 8.4.4.2.

8.4.5.2 Alternative media or tasks

Two respondents suggested an alternative approach, with EB commenting "I feel verbal reflection would be better" and AA suggesting that reflective writing is "not as effective as lesson evaluations".

8.4.6 Patterns in the perceptions of identified groups or cases

The questionnaire responses of the participants have been further explored in order to consider whether there are any common themes in the perceptions within those groups which can offer insight into possible attitudes or understandings which may have contributed to the outcomes achieved.

8.4.6.1 Questionnaire responses from Group A

Group A consists of one participant (NA) who did not fit the correlation model in that the grade in the reflective writing assignment (D+) was higher than the model would predict from the low mean grade (3.0) in the practice assessment. NA rated as 'strongly influential' all aspects in Question 1 with the exception of reading, which was rated as 'influential'. S/he ranked 'observation of other teachers, QTS standards and 'targets' as most likely to prompt reflection on teaching and viewed reflective writing as 'effective' for communicating both reflection and evidence of development. Although judged to be mainly 'technical', the reflective writing was annotated as containing "some evidence of responsibility to search for truth" and the participant's responses to the questionnaire offer a similar impression, with NA commenting that reflective writing "enabled us to reflect on what did not work and to improve upon that". The grade three practice outcome indicates that NA is at the borderline of readiness to assume the role of teacher, whilst the D grade in the academic assignment indicates that s/he is at the borderline of readiness for writing at Master's level. The responses to the questionnaire and the indicators of 'searching for truth' suggest that there may be a connection between these aspects which is linked to other factors such as limited prior experience of teaching or linguistic barriers.

8.4.6.2 Questionnaire responses from Group B

Group B consists of the participants who achieved a high grade in the practice assessment and achieved low grades in the reflective writing. Three of the five (MA, OB and RB)

allocated to this group responded “strong influence” or “some influence” to all of the factors in Question 1. AA gave the same response to all except the ‘incidents arising in your teaching experience’, which s/he viewed as having ‘no influence’. CA also indicated ‘strong’ or ‘some influence’ to all except the ‘reading’ and ‘research’ aspects, which were judged to have ‘little influence’. No patterns were identified in the responses to other questions. However, the textual responses suggested some common ideas, with RB offering the following comments which indicate that s/he subscribes to the notion of connection between the elements.

> “Reflective writing was effective at providing a place for reflection, however, the given criteria/tasks for the portfolio teaching standards varied from very vague to much too specific. The best reflection came from being able to pursue personal interests/struggles/experiences for reflection, those which we judge to evidence the standards ourselves.”
>
> (RB response to Question 4)

> “With such a limited amount of space for each TS and with the sheer weight of lessons and experiences had to reflect on, I do not think that the current model of assessment is fully adequate evidence of the full progress of the individual teacher. As a dialogue with yourself, however, it is very effective.”
>
> (RB response to Question 6)

It is possible that the low grade for the assignment may have influenced the perceptions of the task as mentioned earlier (Winter, 2004).

8.4.6.3 Questionnaire responses from Group C

Group C consists of two participants (CB and SB) who achieved a high grade in the reflective writing assignment and achieved lower grades in the practice assessment when compared to other participants. CB did not authorise identification, hence it is not possible to identify the questionnaire for this participant. SB, already considered in relation to questions 1-4, noted the difficulty experienced in communicating reflection in written form, responding “I find it hard to write although I think about it all the time” and “Putting it down is hard and something that happens after thinking (which is when I have already moved on)”. (SB response to Questions 4 and 6 respectively)

8.4.6.4 Questionnaire responses from ‘Routine’ reflectors

The questionnaire responses of participants who had been judged to demonstrate characteristics of routine reflection included mainly positive (‘strong’ or ‘some influence’) responses to question 1 and a similar range of responses to question 2 as the overall

summary. The text responses, however, did indicate possible commonality of perceptions, with three of the five participants raising issues about the medium of reflective writing.

> "Personally, I do not communicate most effectively through writing. I found the reflective writing tasks restrictive: I found that I was concentrating more on finding a relevant experience to write about and trying to meet the marking criteria than I did reflecting"
>
> (FA response to Question 4)

> "I do think reflective writing is good for communicating our reflections, but I feel verbal reflection would be better."
>
> "Although it can be effective it becomes monotonous and about ticking boxes rather than reflection."
>
> (EB response to Questions 4 and 6 respectively)

> "Although reflection is a crucial part of our practice, the reflection writing essays base too much emphasis on writing skills. A personal development file (using quotes/other authors) may be more effective."
>
> (PB response to Question 6)

The responses here emphasise a concern for meeting a standard which aligns with the perception of 'routine' or procedural priorities within their reflective writing.

8.4.6.5 Questionnaire responses from 'Transformative' reflectors

With the exception of JB and SB, whose responses have been considered earlier, all those who had been allocated to the 'transformative' category for characteristics of reflection responded positively to all the influences on understanding teaching and all ranked 'incidents arising in teaching experiences' and 'observation of other teachers' as the top initiators of reflection. There was not a common response to perceptions of reflective writing, although all but JB viewed this as effective for communicating reflection on practice. Despite responding that the task supported this, four of the five participants in this group viewed the assignment task as limiting the communication of their reflective thinking.

> "They would be more effective if we were allowed to simply reflect on our teaching rather than write about existing literature."
>
> (OA response to Question 6)

> "I found this useful to evaluate & consider my own practice, but sometimes felt constrained by the structure of the task. 500 words to cover how learners learn, how course has helped, references to literature as well as a detailed reflection of a particular incident is often challenging. For areas of particular interest the

> format of the reflective writing tasks can be rather superficial for this reason. Allowing greater freedom of expression may be more beneficial in some cases."
>
> (PA response to Question 4)

> "The evaluations were very good at [enabling] me to reflect on my practice; however, I think we should only evaluate some lessons of value, rather than all. Also we should only do one lot of teaching standards [twice] was excessive. It helped me to write down my thoughts and opinions about the lesson as it reinforces my strengths and weaknesses so I can work to improve."
>
> (RA response to Question 4, spelling of "enabling" and "twice" altered)

> "I do not feel that it was useful writing the reflective essays on each standard, as many were specific parts of each standard and therefore created a need to tailor a lesson specifically to them rather than reflecting properly."
>
> (JB response to Question 4)

> "Reflective writing was effective at providing a place for reflection, however, the given criteria/tasks for the portfolio teaching standards varied from very vague to much too specific. The best reflection came from being able to pursue personal interests/struggles/experiences for reflection, those which we judge to evidence the standards ourselves."
>
> (RB response to Question 4)

The shared view that they felt that there was more to share has been interpreted as indicative of 'personal involvement' and 'ongoing inquiry', further supporting the 'transformative' judgement.

8.5 Reflective log

The maintenance of a reflective log was planned as a strategy for demonstrating the trustworthiness of the research as it developed and for remaining alert to the influences on my thinking. This was of particular importance given the interpretive and developmental nature of the action research approach. What had not been anticipated was the insight it would offer into issues related to engaging in reflective writing. Although it is not claimed that this one person's perspective on reflective writing can be viewed as representative of the participants' points of view, it can be used to provide understanding of the experience. One example of the insight provided by the experience is the development of the model of reflective writing in Sections 6.4 and 9.3. Further observations of the experience, explored in Section 8.5.1, are concerned with issues in relation to the 'messiness' of writing for, and in, reflection and the subsequent changes in attitude arising from attempts to develop a disciplined approach to reflective 'jotting' in the form of a reflective log. Section 8.5.2

summarises the reflections on the theoretical model, developed in Chapter 6. These reflections led to the modifications to the model which are set out in Chapter 9.

8.5.1 The messiness of writing for, and in, reflection

This observation has led to the development of a theory that the writing of reflection as it happens has two purposes: to aid the organisation of thinking, and to capture the thinking for later reference. In my personal reflection during the research and thesis writing this was often linked to a concern that the ideas emerging would later contribute to the findings or conclusions and that there was a risk of omission (i.e. that I would forget them) if not recorded in written form. Ideas of this type often occurred at times of rest, when thinking was unconstrained by tasks to be completed. This, then, is reflection on, rather than in, action, but is not the deliberate, focussed thinking about practice which was discussed by Schön (1983) and is commonly associated with that concept. Rather, it is the unbidden, natural suggestion, intellectualisation, hypothesising, reasoning and forecasting of Dewey (1933).

As a consequence, the need for informal jotting developed, with ideas frequently developing whilst exercising, relaxing with friends or waking me from sleep during the night. Like Moon (2006:138) I found the practice of ensuring the continuous availability of a notebook facilitated the capture of ideas as they arose. However, the mark making which contributed to the structuring and recording of ideas was, necessarily, different in nature from academic writing (Appendix 25). This has implications for the notion of maintaining a reflective log. If the reflective log is for myself, as a record of the development and synthesis of ideas, then the informal jottings suffice. If, however, the log is for others, as a validation tool for the research, then the informal jottings must be translated into a form which is organised and articulated for other readers. Hence the reflective log assumed the status of an assessed piece of work and the writing was influenced by perceptions of the expectations and judgements of the readers. That is, a perceived power relationship between the author and the reader began to influence the approach to writing. Furthermore, there was a sense that, in translating the reflective jottings into writing for others, the output assumed the status of data, as is illustrated by this paragraph.

A further observation of reflective writing related to the timing. In agreement with the student responses, I concluded that reflective writing is initiated as reflection after action.

> “Written reflection is inherently constructed at a time removed from the episodes on which reflections are based. There are certain features which are a consequence of this fact:

> - a certain amount of descriptive narrative is necessary in order to set the scene for the reader, to enable them to understand the context (and this may be used as an indicator of understanding the wider context – therefore higher levels of reflection are indicated). Therefore, when setting assessment criteria, it would be inappropriate to penalise the author for description, but it would be appropriate to encourage "brief but vivid" accounts (Mason, 2004) and to encourage consideration of the wider context within that scene setting."
>
> (Transcript of Reflective Log, August 2014)

8.5.2 The place of 'others' in the theoretical model

The findings have highlighted the undeniable place that the influence of others has on the thinking and learning of individuals. Tan (2013), for example, supports the view that there is a significant place for dialogue with others in the use of reflective writing in developing practice, noting that such dialogue helps student teachers to "see other perspectives" (p.823). The influence of others has been evident in the selection of priorities, the interpretation of meaning and in emotional responses. Indicators of these factors have been found in the findings from questions about influences on reflection and how reflection is used, extracts from reflective writing, the W&M2 rubric, the literature, the assessment briefing and criteria, the professional standards, the FHEQ level descriptors and in my own learning as the study has evolved. The following extract from my reflective log illustrates this:

> "coming to a view that a crucial element has been missed in the planning of this research in that I have only planned to explore the assessment criteria and the final outcomes of the assessment task. What is emerging is a sense that there are other influential factors which shape the learning of the students in this unit i.e. the teaching and assessment guidance."
>
> (Transcript of Reflective Log, August 2014)

In the development of the theoretical model in Chapter 6, the focus was on visualising the interaction between 'the course' or, more specifically, 'assessment' and learning. To that end, the entities were treated as if separable from human interaction. There was a possibility that a reductionist approach such as this would obscure fundamental features of the relationship. In fact, an early criticism of the model suggested that learning was being viewed through a constructionist lens, rather than the social constructivist view which had been espoused and in which the principles of constructive alignment are founded. Porter describes such an approach as arrogant, leading to "fallible knowledge claims" (2002: 61). It is perhaps necessary, therefore, to attempt to justify the approach and to demonstrate the way in which the research so far has contributed to personal and institutional knowledge and understanding. This will be addressed in the review of the theoretical model in Chapter 9 and in the conclusions of Chapter 10.

8.6 Critical evaluation of the data collection and analysis methods

The aim of this research was to learn more about the ways in which assessment and learning interact in order to deconstruct and reconstruct the assessment strategy of a particular course of ITE and, through that reconstruction, to be assured of an effective interaction between assessment and learning, theory and practice, and professional and academic development.

In adopting the criteria to analyse the reflective writing samples I was caused to debate my interpretation of the W&M2 criteria. This is exemplified in the nature of the annotations on the samples and demonstrates again the shifting from positivist to interpretivist perspectives and the subsequent emerging awareness of my own assumptions and acknowledgement of possible alternative interpretations or perspectives. I am now aware of an assumption, made on beginning the second stage of this research, that having reviewed and modified the rubric it would be possible to apply the criteria objectively and analytically. It emerged whilst attempting to match descriptors to the reflective writing samples that I had found it necessary to annotate extracts to explain my reasoning both for my own future recall and to justify the conclusions drawn to other readers. In addition, some annotations were in the form of questions, indicating an internal debate about multiple possible interpretations of what is written and the underlying meanings and intentions. There are issues here in terms of the validation of the findings, which I have addressed to some extent by comparing my application of the criteria with that of a colleague and offering reasoning for the decisions made.

This attempt to confirm the trustworthiness of the findings in terms of repeatability, does little to address the limitations to accuracy arising from the privileging of myself and my colleague as the interpreters of meaning, both in the reflective writing and in the responses to the questionnaires. This also raised a question about whether my own interpretation would be the same as that of teaching / assessing colleagues using the criteria in the evaluation of reflective writing (whether formative or summative) and further, whether it would be the same as that of students using the rubric to inform the structure of an assignment. Emerging from both aspects of this issue is the place of dialogue as a key characteristic of the evaluation of achievement, feedback and feedforward elements of assessment strategy. Once again, social construction of understanding and negotiation of agreement are underpinning principles of the refined model.

The use of the W&M2 rubric to analyse samples of 'reflective writing' has further resulted in the revelation of an assumption, inherent in the theoretical model, that reflection can be adequately represented within a written artefact. The rubric provides the basis for the analysis and, possibly, development of reflective writing. However, the reflective writing artefact is a static product which attempts to summarise the dynamic process of reflection and the conclusions reached through that process at a predetermined point in time.

8.7 Summary of key findings

The findings from cycle two of this action research study are summarised below. These findings will be used to review and revise the theoretical model in Chapter 9 and to propose modifications to practice and further questions to be explored in Chapter 10.

8.7.1 Reflective writing was valued by the participants

The majority of participants expressed a view that engagement with reflective writing had contributed to their development as teachers (Section 8.4.1 and Section 8.4.2). The ways in which the activity had contributed included: enforcing the discipline of systematic evaluation of practice by reference to theoretical perspectives, by providing a focus for reflection, making time for reflection (in agreement with Alger, 2006 and Iredale *et al.*, 2013) and most commonly, by supporting target setting for further development. The result differs from the findings of Imhof and Picard (2009), for whom sixty percent of participants judged the portfolio as 'useful' or 'rather useful' (p.151).

8.7.2 The reflective writing assignment was perceived as limiting reflection

The assignment was described by the majority of participants, including those who saw value for their development in the reflective writing assignment, as having a limiting effect on their reflection. This supports Fendler's (2003:23) observation of "unintended and undesirable" effects. Limiting factors included the constraints of the task design (see Section 8.3.2, Section 8.4.3 and Section 8.4.6.2) such as content specification and word allowance, and the use of reflective writing as evidence of progress. Loughran's (1996) view that "the nature of the tool may inhibit some individuals more than others" and that the "analysis may not fully credit the thoughts of some of the student-teachers as their attitude to journal writing also impacts on that which is documented" (p.87) is supported here.

8.7.3 The reflective writing assignment appears to discourage reflective qualities

The juxtaposition of W&M2 characteristics with assignment grades indicated that high levels of reflection were not rewarded in the application of the assessment criteria, whilst writing

which demonstrated low levels of reflection was achieving high grades. The implication is that the assignment is, at best, unsuccessful in promoting reflective practice. There is some evidence to suggest that students are strategically, if unknowingly, adopting low levels of reflection in order to achieve high academic grades (Section 8.3.2). This supports Torrance's (2007) view of "instrumental" engagement with the criteria. In those cases the assignment can be viewed to be discouraging the development of habits of reflection.

8.7.4 The main influences on personal understanding of teaching are the ideas of others and experience in practice

The ideas of tutors and/or mentors were the primary influences on personal understanding of teaching for every participant (Section 8.4.1). Notably this finding places ideas from others above experiences in practice, although this aspect was also rated as significantly more influential than the other influences which had been suggested. There is support here for the notion of acknowledging the important role which others have in negotiating issues which arise in practice. This finding emphasises the crucial role of tutors and mentors as contributors to what Warford (2011) terms the "Zone of Proximal Teacher Development" noting that this role is "mediational" and not "checklist" (p.257).

8.7.5 The main 'germs' for reflection are experiences in practice and ideas from others

'Experiences in practice' and 'ideas from others' were the most highly ranked initiators of reflection. This finding is in agreement with Loughran's (1995:85) study and is viewed as having significant implications for the development of the theoretical model and for the next cycle of research, highlighting the potential influence which key actors have over foci and priorities for reflection.

8.7.6 Evidence of connections between reflection and outcomes in practice is inconclusive

It was possible to locate an impression of weak correlation between the professional and academic assessment outcomes. However, a significant proportion of participants demonstrated disconnection between the two. Similarly, findings from the juxtaposition of W&M2 characteristics and professional achievement were inconclusive due to the limiting nature of the quantitative grades which had been employed as indicators of achievement. Although there is evidence to suggest connections between the three aspects, (see Section 8.2.3) no evidence was found of a causal relationship between reflective writing and improving practice. However, it has been recognised that the use of summative outcomes as an indicator of professional performance has failed to capture the professional progress from beginning to end of the course. This outcome highlights an issue identified by Asikainen *et*

al. (2013) in using grading which does not "qualitatively measure the learning outcome" (p.211). The study has been unsuccessful, then, in determining whether reflection or reflective writing have influenced progress i.e. have contributed to professional learning over the period of engaging in the reflective writing process. This supports the views of Zeichner and Wray (2001), Fendler (2003), Ward and McCotter (2004), Imhof and Picard (2009), who propose that more research is required.

8.7.7 There are effective graduate teachers who do not demonstrate how in the written assignment

There is some evidence to support the perception that not all effective teachers are able to demonstrate that effectiveness through the medium of reflective writing (Section 8.4.3). The perception was expressed by participants in their questionnaire responses and the notion was supported by findings from the analysis of the outcomes (Section 8.2.3 and Section 8.4.5). The view was also supported by Lee (2005), Fund (2010b) and Lane *et al.* (2014). However, it is noted that this apparent difficulty with expression in writing should not be viewed as a fixed characteristic, but as a developmental priority (Ryan, 2014). I agree with Lee's observation that "the central goal of reflective teacher education is to develop teachers' reasoning about why they employ [...] strategies and how they can improve" (p.699).

8.7.8 The nature of engagement with the professional requirements is dependent on the dialogue with mentors and tutors

The employment of the UCET/NASBTT/HEA descriptors (UCET, 2012) for monitoring and measuring professional achievement and the expectations for a professional dialogue between mentor and mentee offer the potential for supported development of reflective practice (Section 8.3.1 and Section 8.3.4). The findings summarised in Section 8.7.4 and supported in Section 8.4.5 confirm that mentor and tutor guidance is a significant influence in learning about teaching. The findings would appear to support the work of Tan (2013), who presents "reflective dialoguing" as a construct which is necessary alongside reflective writing for the development of "self-efficacy" in student teachers (p.814).

8.7.9 The nature of engagement with the academic requirements is dependent on the dialogue with mentors and tutors

The assessment strategy includes cycles of submitting reflective writing, receiving written feedback, and meeting with tutors to discuss that feedback and plan actions to improve. There is the potential, therefore, for development of reflective practice through dialogue but also to impede reflective practice through guidance which is misdirected. Price et al. (2011) found shortcomings in the traditional support for students in HE to understand the

assessment process and argue that “performance can easily be improved by supporting understanding of the assessment tasks and criteria” (p.485). The findings of Section 8.7.4 and Section 8.4.5 also confirm that tutor influence is a significant influence in learning about teaching, supporting Loughran’s (2006) recognition of the importance of modelling and articulation by teacher educators (pp.82-100).

8.7.10 Application of the W&M2 rubric is interpretative

In order to form judgements about the extent to which reflective qualities were evident within the samples of reflective writing it was frequently necessary to interpret both the criteria and the writing (Section 7.3 and Section 8.3.3). Latent and meta-criteria (Wyatt-Smith and Klenowski, 2013) were acknowledged and managed in order to assure consistency and comparability as far as possible.

8.7.11 Students expect that judgements of their performance are owned by others not self

Participants expressed a view that judgements about their progress should be made through observation by others or more detailed analysis of the reflective writing (Section 8.4.4 and Section 8.4.5), indicating a view that responsibility for judging professional achievement lies with others and not with self. The potential consequence of this is a response which is determined by what the student perceives the requirements to be (Fendler, 2003). Hence a response may have the appearance of a reflective response whilst not truthfully representing the reflections of the individual. It could be argued that the writing is a reflexive response in which the students have “mediate[d] their own concerns and considerations […] and their particular circumstances […] to write in certain ways” (Ryan, 2014:62). The extent to which this matters, according to the intentions of the task, is determined by the impact of that response to the task on the developing practice of the student. This raises a question as to whether, by causing the student to construct a written reflection with a focus which is not that which s/he would naturally have chosen, the task may direct attention to appropriate priorities for development. Loughran (1996) and Ward and McCotter (2013) noted the transition in student teachers from an early focus on self-related issues such as ‘getting it right’ or ‘coping with the workload’ to a later focus on the impact of teaching on learning. The question emerges as to whether directing attention away from self can contribute to supporting progression.

8.7.12 Reflective writing which will be read by others is influenced by a power relationship between author and reader

The concerns expressed by participants about 'getting it right' and struggling to satisfy a complex set of requirements in the manner required indicate that the writing in the assignment is influenced by perceptions of what the reader wants or expects (Section 8.4.3). There is agreement here with Moon's (2006:110) observation of a lack of clarity about the purpose of assessed reflective writing. This is further supported by suggestions to consider other media or fora (Section 8.4.5). The personal reflections of Section 8.5.1 show that the feelings were in common with my own experiences. There is, agreement here, with "the paradox of flow" (Gammon and Lawrence, 2006:138) and commonality of experience with Pereira (2014) who finds the reflective writing of a student teacher to enact a response to the perceived requirements of a range of influential others and argues that "The results reveal [the student teacher's] voice to have been constructed upon the convergence of other voices and to perform diverse reflective actions" (p.521).

9. IMPACT ON THE THEORETICAL MODEL

The aim of this chapter is to review and improve the theoretical model which was proposed in Chapter 6. The review has been informed by the findings of the main study and the personal reflections arising from those findings. This chapter will develop the theoretical underpinnings by which to achieve the overall aim of this research, which was to establish a framework for assessment in teacher education which satisfies the academic demands of a postgraduate award and at the same time engages student teachers in meaningful learning activity which contributes to their development as professional teachers. The chapter includes a review and revision of the propositions, the model of learning and assessment, and the model for understanding reflective writing, a redefinition of what is meant by 'assessment strategy' in this context, a proposal for developing reflection through reflective writing as part of an assessment strategy, and a consequent proposal for a course assessment strategy.

9.1 A review of the initial model in light of the findings

The theoretical model of Chapter 6 was introduced through a set of theoretical principles presented as propositions (Section 6.1), which were then developed into visual models of learning and assessment (Section 6.2) and reflective writing (Section 6.3).

9.1.1 The propositions on which the research was founded

The propositions (Table 9.1) have been tested in light of the findings set out in Chapter 8 and are restated and/or revised below. A new proposition is introduced to respond to the reflections in Section 8.5.2 about the crucial role of others in this development.

9.1.1.1 A revision to Proposition 1

There is a need to broaden the scope to encompass all aspects of the assessment design and to account for the timescale required to support cycles of formative dialogue. In agreement with Hussey and Smith (2003) and Gammon and Lawrence (2006), the proposal is that programme assessment strategies need to allow the flexibility to take account of the situated nature of learning. Hence:

Programme assessment strategies should promote teaching and learning activity which initiates and sustains engagement with intended and emerging learning outcomes as well as evaluating achievement. (Proposition 1)

Table 9.1 The propositions from Section 6.1

Proposition 1 Assessment tasks should require activity which contributes to achievement of the intended learning outcomes as well as evaluating the level of achievement of those learning outcomes.
Proposition 2 Reflective writing tasks can be employed as a teaching strategy to initiate reflection on practice and through that reflection, to evaluate and improve teaching.
Proposition 3 Reflective writing tasks can be employed as an assessment task in order to motivate engagement and to prioritise reflection on practice as a key element of the programme.
Proposition 4 The programme of ITE should be designed to promote learning which supports students to develop as effective teachers whilst simultaneously satisfying professional standards and academic qualification requirements.
Proposition 5 The programme design should support student teachers by ensuring that their work as students contributes to their work as teachers and facilitates the travel (both physical and intellectual) between the two.
Proposition 6 The programme design should embed reflection as a thread which draws together the various elements of the programme and enables the student teacher to make sense of theory in practice and to grow as a theoriser in practice.
Proposition 7 A teacher education programme should develop a student teacher's ability to explain, justify and review her/his professional decisions by reference to knowledge of the subject and curriculum, knowledge of the individuals in the class and pedagogic knowledge.

9.1.1.2 Retaining Propositions 2 and 3

The findings confirm that reflection on practice is a motivator of learning activity, that reflective writing can be used as an organiser of reflective activity, and that the reflective writing assignment supported focussed reflection on practice. The findings neither confirmed nor challenged the notion that reflection on practice is a strategy for improving teaching practice. However, the body of literature which supports this theory is extensive (Moon, 2000; Mason, 2004; Loughran, 2006). Hence Propositions 2 and 3 are supported and retained and will be included in the next cycle of action research. (See Section 10.1.3).

9.1.1.3 Retaining Propositions 4, 5 and 6

There are findings which confirm that time for reflection was an issue but also raise concerns about the complexity of the assignment in attempting to simultaneously satisfy academic and

professional requirements, a view shared by Peck, Gallucci and Sloan (2010). The concerns indicate that more must be done to support this aspect but do not challenge the assertions. Furthermore, the analysis of the criteria indicates that it is possible to integrate them. Hence the propositions 4, 5 and 6 are retained.

9.1.1.4 Retaining Proposition 7

There are findings which challenge the notion that "an effective teacher is able to articulate [aspects of practice]" (Section 6.1.6) insofar as the assignment required that articulation to be in written form. The notion was supported by the literature in presenting the proposition but challenged by some participants in their responses to the questionnaires and also by examples of participants who had achieved high professional outcomes and low academic grades, or high professional outcomes with low levels of reflection using the W&M2 rubric. Furthermore, a significant aspect of this proposition was missed in Chapter 6, in that it is through reflection that a teacher is able to articulate the 'noticing', 'suggestion' and decision making which characterise her/his practice (Dewey, 1933; Mason, 2004; Geerinck, Maaschelein and Simons, 2010). Hence the proposition is retained and should be explored further.

9.1.1.5 An additional proposition

From the reflection summarised in Section 8.5.2 and the related findings in Section 8.7.4 and Sections 8.7.8 to 8.7.11 inclusive, it is concluded that the assessment strategy must include planning which takes account of, and maximises opportunities arising from, the influence of others on the development of the students in terms of their professional practice and their attitudes and responses to the assignments. In his study of reflection and learning, Warhurst (2008) has argued that it is "through dialogue [that] the assumptions predicating practice are most likely to be exposed, established practice problematised and new forms of practice constructed" (p.2). In addition, Tan (2013) argues that the use of 'dialoguing' alongside reflective writing as elements of a "reflection model" can be used to address the issue of introspection which was identified as an issue earlier, enabling student teachers to "imagine the experience of others and therefore understand how different perspectives can co-exist" (p.823). Furthermore, given the complexity of teacher knowledge, illustrated in the Leach and Moon model (2000, p.396), there is a clear need to develop a structure or process through which students are supported to negotiate and manage their knowledge development. Hence a new proposition has been developed:

The role of tutors and mentors in supporting the student teacher to grow as a theoriser in practice and to develop the capacity to explain, justify and review decisions made in practice should be claimed as an element of the programme assessment strategy. (Proposition 8)

9.1.1.6 The revised propositions

The refined set of proposals is shown in Table 9.2

Table 9.2 The revised propositions

Proposition 1: Programme assessment strategies should promote teaching and learning activity which initiates and sustains engagement with intended and emerging learning outcomes as well as evaluating achievement
Proposition 2: Reflective writing tasks can be employed as a teaching strategy to initiate reflection on practice and through that reflection, to evaluate and improve teaching.
Proposition 3: Reflective writing tasks can be employed as an assessment task in order to motivate engagement and to prioritise reflection on practice as a key element of the programme.
Proposition 4: The programme of ITE should be designed to promote learning which supports students to develop as effective teachers whilst simultaneously satisfying professional standards and academic qualification requirements.
Proposition 5: The programme design should support student teachers by ensuring that their work as students contributes to their work as teachers and facilitates the travel (both physical and intellectual) between the two.
Proposition 6: The programme design should embed reflection as a thread which draws together the various elements of the programme and enables the student teacher to make sense of theory in practice and to grow as a theoriser in practice.
Proposition 7: A teacher education programme should develop a student teacher's ability to explain, justify and review her/his professional decisions by reference to knowledge of the subject and curriculum, knowledge of the individuals in the class and pedagogic knowledge.
Proposition 8: The role of tutors and mentors in supporting the student teacher to grow as a theoriser in practice and to develop the capacity to explain, justify and review decisions made in practice should be claimed as an element of the programme assessment strategy.

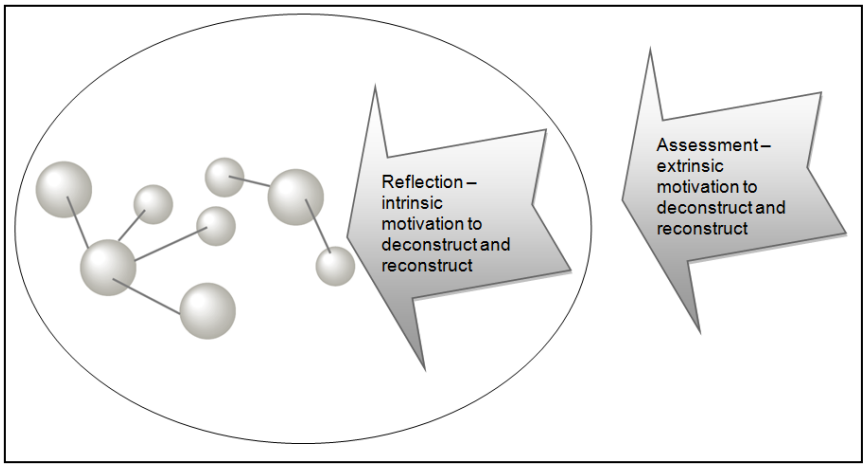
9.1.2 The model of learning and assessment for programme design in ITE

What has become apparent from my reflections on the findings of stage two is the need to explore further the constructs of 'reflection' and 'assessment' as they were depicted in the initial theoretical model (Figure 9.1) and to review the boundary lines which have been used in the images to consider ways in which they contribute to understanding of the image.

In this model, reflection is viewed as a source and an outcome of intrinsic motivation to construct knowledge or understanding. It is assumed that the actor in this model engages in reflective activity in some form, irrespective of the manner in which that reflective activity is

initiated. It is acknowledged that this assumption is arguable. Dewey (1933), for example, distinguishes between thinking and reflection, asserting that reflective thought contains "definite units [of thought] that are linked together so that there is a sustained movement to a common end" (p.2). One possible question for future work might be whether every student teacher does engage in reflection in a manner which is distinct from thinking. However, phases one and two of the research have been developed around an assumption of reflective thinking and there has been no indication, in the findings from either study, that the assumption is not reasonable i.e. every participant in the studies demonstrated characteristics of reflection in reflective writing as defined by the selected criteria.

Figure 9.1 A reminder of the visual metaphor for reflection, learning activity and assessment from 6.3.2

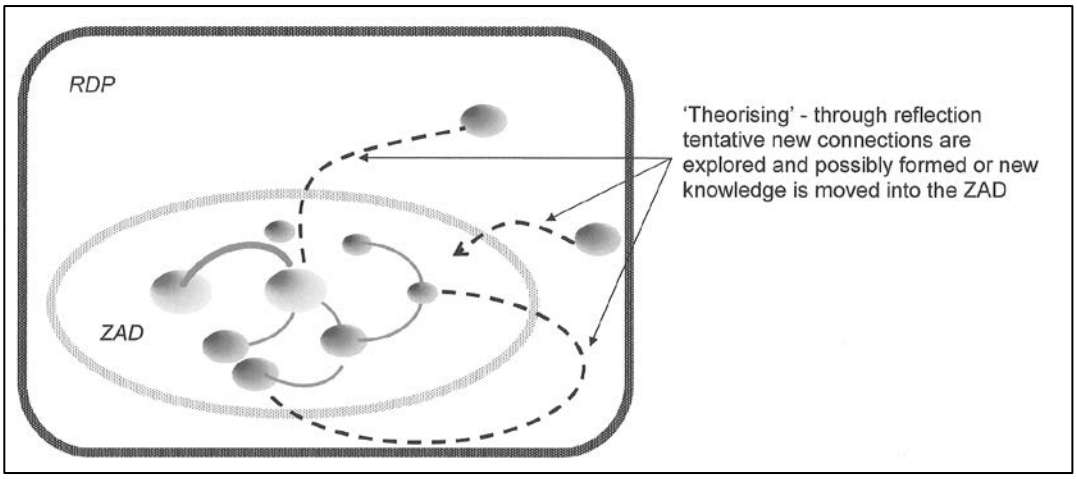


The directed arrow, which has been used to represent reflection, and the nodes and arcs (or links), which represent connected and unconnected ideas or experiences, have been co-located within a bounded space, whereas the directed arrow representing assessment has been located outside the boundary. The boundary was used here to represent the separation between transactions which are managed internally by the individual and those which are influenced by people or factors which are external to the individual. There was no attempt here to suggest that internal transactions are isolated from interactions with other people or other external influences. Rather, it was an attempt to offer a simple model which represents the particular areas of interest for the study.

The findings and subsequent reflection and reading have indicated that, by attempting to represent a complex relationship in a simple and somewhat atomistic form, significant elements have been disregarded. One aspect of this shortfall is the boundary shown in the

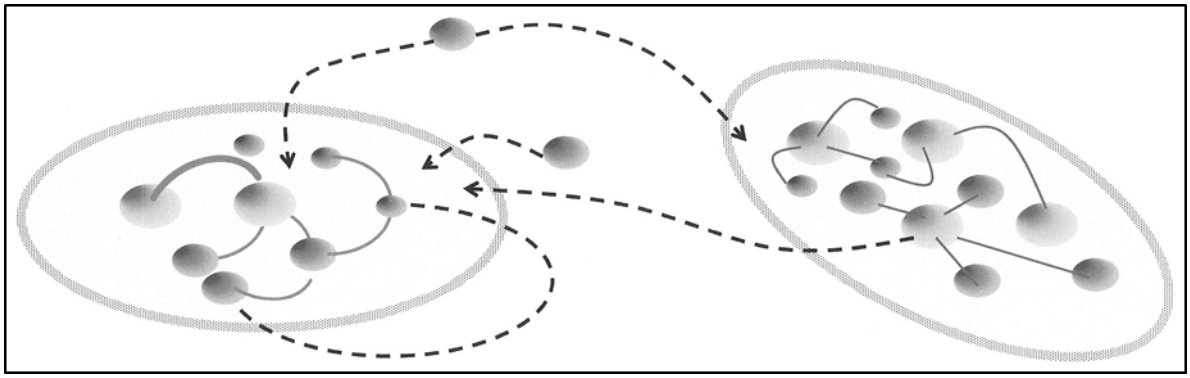
diagram, which is a false one because it depicts an unbroken barrier between self and others (other people and other factors), whereas it is clear from the findings and the literature that the interaction between self and others is a key factor (Biggs,1996; Lane *et al*., 2014). In improving the model, it has been helpful to consult the learning theorists who have influenced my personal theories. Developing Vygotsky's (1978) model of Zones of Actual and Proximal Development (ZAD and ZPD) and Cobb's "realm of developmental possibilities" (which will be referred to as RDP), the image in Figure 9.2 portrays a present but nevertheless transient and penetrable boundary between that which has been learned by self and that knowledge which may be within reach. In my interpretation, the RDP includes not only ideas and experiences which have not yet been encountered but also ideas and experiences which have previously been encountered but have been found not to fit with existing knowledge networks, connections which have not yet been made between existing networks and ideas and experiences which could potentially disrupt or deconstruct existing networks. The 'nodes and arcs' model of constructed learning can be incorporated within the ZAD and RDP as shown in Figure 9.2. Developing the model to illustrate the process of theorising, Figure 9.2 represents the accessing of ideas located within the RDP and connections forming with those ideas such that they begin to become connected to existing knowledge within the ZAD and ultimately to be encompassed within that zone. Reflection, the activity which encompasses noticing, marking and deliberating on new experiences and ideas and the connections they may or may not have with existing personal theories, is therefore represented as a broken arc which either begins to form tentative connections between theories in the ZAD and ideas in the RDP, or begins to form tentative new nodes, or begins to form tentative new arcs.

Figure 9.2 Reflection – the tentative forming of possible connections within ZAD and RDP



However, that dialogue may be externalised in discussion or in writing and, through that externalising, contribute to and/or be altered by the reflection of others (Muir and Beswick, 2007:77). In the model which is emerging here, the interaction with others could be in the form of face-to-face dialogue and might equally be through reading the work of others or observing their practice. The common feature of each of these is the existence of already constructed connections and opportunities for new connections to be made, for all those involved in the interaction. This can be described as co-construction. Hence, in Figure 9.3, reflection is shown as the process of building a bridge, adopting Raiker's (2010:57) image which provides a bi-directional link between the constructed or constructing networks of the actors.

Figure 9.3 Reflective dialogue – the co-construction of networks of connected ideas



The image of co-construction acknowledges the place of deconstruction and reconstruction on both 'sides' of the model, illustrates how either party could be considered the More Knowledgable Other (MKO) (Vygotsky, 1978), as proposed by Hudson (2015), and confirms the importance of reflexivity on the part of the tutor or mentor within the assessment strategy to empower the learner as a contributor to the construction of knowledge or 'theorising'. The idea is explored further in Section 9.4.

With a model of theorising developed, the notion of assessment, and how it can influence the theorising depicted in Figure 9.3 to take place, will now be considered. The meaning of the word 'assessment' was discussed in Section 2.4.5 and has, until now, been used in the model to encompass the task and associated information which influence student activity and lead to submission of an artefact as evidence of achievement. Furthermore, the phrase 'assessment strategy' has been used to encapsulate the prescribed activity (the task), the output of the activity which is to be submitted and the criteria by which achievement will be measured. The findings of this study have signalled a need to consider assessment strategies in more detail and to recognise that, whilst the assessment strategy for the course

developer has been, and remains, the focus of this study, the assessment strategies of the other actors in the process must also be understood. The scope for understanding what is referred to as an assessment strategy is broad. At the individual level Gibbs (2006: 23) and Gammon and Lawrence (2006: 134) for example, discuss the "assessment strategies employed by students", whilst the assessment strategies of tutors in terms of both guidance and marking (Wyatt-Smith and Klenowski, 2013; Boyd and Bloxham, 2014 for example) and of institutions (Boud and Falchikov, 2006; Price *et al.*, 2011 for example) are also at play. Furthermore, it is clear that these are interconnected, with the course or programme level assessment strategy being constrained by the institutional level requirements and, in turn, influencing the behaviours and attitudes of tutors and of students (see Bloxham and Boyd, 2011:129-138 for example). There is a need, then, to consider the place of the assessment strategies of institution, tutor and student in relation to this model, before attending to the detail of the assessment strategy for course developers.

The institutional assessment strategy is considered to be a constraint, in that it is outside the control of the course developer and seeks to address issues of quality assurance, equity and equality and feasibility (Knight and Yorke, 2003: 206-207). In developing this theoretical model for learning and assessment, the dependence on accommodation (Piaget, 1973) within the institutional environment is acknowledged.

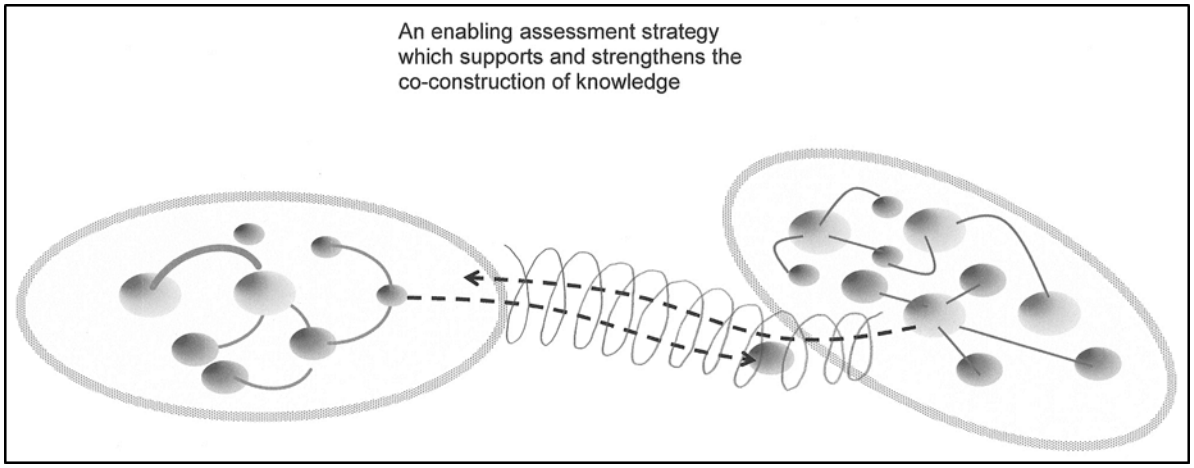
The 'assessment strategies of tutors' refers to the attitudes and behaviours of tutors within assessment related activities such as: providing information and guidance, approaches to assessment criteria, marking and feedback, etc. The findings from phase two of this study have indicated that these interactions between tutors and students have the potential to influence the students' assessment strategies and this factor has been incorporated in the revision to the propositions in Section 9.1.1 and into the revised assessment strategy in Section 9.4.

The assessment strategies of students, although not previously labelled as such, are the focus of this study and it is intended that through evaluation and modification of course design there will be a positive effect on those personal strategies which more effectively promotes learning through engagement.

Drawing together these reflections, the notion of assessment depicted in the visual metaphor in Figure 9.4 is that of a course assessment strategy which includes interaction between students and tutors and, therefore, incorporates student and tutor assessment strategies within it. There is agreement, here, with the Gammon and Lawrence (2006) notion of 'flow' in

assessment. The detail is explored further in Section 9.4. In order to be constructively aligned with the intended learning outcomes, i.e. with reflective practice, the assessment strategies of both student and tutor are aligned with each other and support and promote reflective dialogue between them. The image shows assessment wrapped around reflective dialogue in the manner of an exoskeleton, providing strength and security for the reflection. The concept of enabling and strengthening further supports the proposal for establishing reflexivity within the assessment strategy.

Figure 9.4 The revised model of constructive alignment of learning and assessment in ITE



As in Chapter 6, the model of learning and assessment can be adapted to provide a metaphor for non-constructive or destructive alignment. Reproduction of the images are not attempted here but can be visualised as a tightening of the coils which constrains the construction of knowledge or a pull away from the directions of reflection. That is, the misalignment can cause the student and/or the tutor to direct attention to requirements which do not contribute to the intended learning.

9.1.3 The model for understanding reflective writing

The model of modes of reflective writing developed in Section 6.4.1 and Table 6.1 is supported in the findings, in terms of students' concerns about the constraints of the assignment (Section 8.7.2) and in the outcomes (Section 8.7.3 and Section 8.7.4) as well as personal reflections (Section 8.7.11). As Fendler (2003) argued, reflective writing can have "unintended effects which undermine their intended purposes" (p.20). This raises questions about ways in which an assessment strategy can value the reflection and reflective writing which is for self and can encourage development of that which is for others without reframing the writing to meet additional requirements or perceived expectations. This proposal is further developed in Section 9.3.

9.2 Defining 'assessment strategy' for course development

The phrase "assessment strategy" was discussed in Section 2.4.5 with a particular focus on the various strategies adopted by the different actors within the assessment process. However, in the design of this research, the phrase was used without explicit attention to the definition which I had assumed. Subsequently, in undertaking the analysis of the assessment criteria, the connection between intended learning outcomes and assessment criteria was investigated because of the importance of this connection for effective constructive alignment. This activity further highlighted the need to review the assumed definition of an assessment strategy for course development.

The methodology for this study has focused predominantly on the design of the assessment task and the framing of the assessment criteria. As mentioned above, attention has also been paid to the connection between the learning outcomes and the assessment criteria. Hence it is apparent that 'assessment strategy', for the purposes of this research, has been used to encompass learning outcomes, assessment task and assessment criteria. From the findings and the reflections on those findings, it is suggested that a course developer should consider strategic use of several other influences in the design of assessment. (Bloxham and Boyd, 2011:129-138; Leach, Neutze and Zepke, 2001) It is proposed that an assessment strategy for course development will encapsulate a set of practices including:

- identifying the scope of the learning outcomes to be assessed
- articulating the assessment criteria - the descriptors of ways in which achievement of the learning outcomes can be demonstrated
- designing the assessment task - the work to be completed and submitted by the candidate
- specifying the time and timings for the assessment activities
- presenting the assessment briefing - the methods and resources used to introduce the task
- providing assessment guidance - the methods and resources used to support the candidate in preparing to undertake the task
- evaluating achievement - marking and grading
- providing feedback to inform the candidate of the outcomes, feedforward to identify priorities for development and the way in which these work together and contribute to the intended learning activity.

In the particular assessment strategy which is the focus of this research, the candidates are student teachers on a course of initial teacher education leading to an award which includes

both a higher education qualification and a recommendation for Qualified Teacher Status. The complexity of this remit is evident and the effect on students of a "complex and multifaceted assignment" (Gibbs, 2006:20) is recognised.

The particular assessment task is specified as reflective writing. This aspect has been taken to be fixed, a rationale has been offered and it is this type of task which has formed the basis of this study. However, the personal nature of the reflective writing task makes it unlike any previous assessment experience for many students and this, alongside the need to satisfy multiple requirements, can be uncomfortable. Gibbs (*ibid*.) notes the challenge of implementing new approaches to assessment when students are frequently "wary of approaches with which they are not familiar or that might be more demanding [and] unhappy about assessment methods where the outcomes might be less predictable" and this view was supported by the findings of this study.

An aspiration of this work has been the development of an assessment strategy which forms an integral part of the teaching and learning on the course. The following section therefore seeks to develop a 'learningful assessment strategy' for ITE, incorporating reflective writing as a fixed characteristic.

9.3 What the assessment strategy can do to promote reflection through reflective writing

In order to propose an assessment strategy which is effective in promoting learning about practice through reflection, it is necessary to revisit the model of reflective writing and consider the ways in which the elements of assessment strategy can contribute to the stages of reflective writing.

9.3.1 The stages of reflective writing

Drawing together the model for understanding reflective writing proposed in 9.1.3 and the work on reflection by Dewey (1910) and Schon (1991) and on reflective writing by Mason (2004) and Moon (2002, 2006), a model for the stages of reflective writing is proposed. The model identifies distinct stages in a journey from internal reflection, i.e. the process, to the submission of a written representation of that reflection, i.e. the product, structured to satisfy the requirements of readers who may be external to the dialogue around that reflection. The stages of the journey are summarised in Table 9.3.

There is no indication of a linear trajectory from 'noticing' to 'summarising'. Rather, the model is one which cycles and branches when necessary, as illustrated in Moon's (2002:35) map of reflective writing.

Two further observations are offered:

- Whilst 'noticing' signals the beginning of a period of reflection around an identified theme, it is unlikely to be enacted in isolation. i.e. there are 'churnings' taking place, either juxtaposed or intertwined. Hence it is likely that the organising and framing of ideas includes the forming of connections between themes or theories, in the manner illustrated in Figure 6.9.
- Although 'summarising' is characterised by a predetermined point in time, there is no implication that the cycling ends once the formal written summary is submitted.

Table 9.3 A model of the stages of writing reflections for submission

A label for the stage	Description of the stage
Noticing (Mason, 2004)	A problem is noticed and triggers an internal churning (Schon, Mason, Dewey)
Marking (Mason, 2004)	The churning brings the type of problem to the forefront of consciousness (Schon's 'framing', Dewey's 'intellectualisation', Moon's (2002:33) 'reflective thinking')
Representing (Bruner and Kenney, 1965; Moon, 2002)	As part of the framing and forefronting, thoughts are jotted down and/or shared with others in discussion
Theorising	The act of representing results in organising, structuring, framing, thereby perpetuating the 'churning' (Dewey's "reasoning")
Complying	Attention is drawn to external requirements (Pereira, 2014). This has the same impact as other 'problems' in that it triggers internal churning; noticing; representing and organising.
Summarising	A summary of the reflections is constructed in writing and submitted at a pre-determined point in time. (linked to Dewey's "judgements")

These identified stages in the development of reflective writing can be used to inform assessment design which adopts principles of constructive alignment, providing a structure to underpin the design of assessment tasks, the timing of assessment activity, the interactions of students with others and the nature of information and guidance. The following sections provide a theoretical framework for using the stages of reflective writing proposed here to shape an assessment strategy which has the development of habits of reflective practice at its core.

9.3.2 Using the model of stages of reflective writing to shape principles for assessment strategy

One of the key findings from the research has been the student perceptions of a task which requires them to 'force' reflection on specified themes and to disregard or suppress the innate reflections which arise as part of their developing practice. Loughran (1996) notes that where journal writing is

> "simply an assessment tool, […] student teachers may write what they think the teacher educator wants to read. They may also resent the imposition of journal writing and grudgingly consider it as an obligation rather than as a useful focus for their own learning".
>
> (p.74)

One response offered was that the assessment task was positioned as a 'more knowledgeable other (MKO)' (Vygotsky, 1978) by providing prompts for reflection. The responses from research participants indicated that ideas presented by others are important for developing their understanding of teaching and learning whilst prompts for reflection arise most commonly in their experience in practice. Furthermore, the course designer has a responsibility to support students to organise and plan their development in order to satisfy the requirements of the qualifications. The strategy must, therefore, integrate these factors.

However, whilst the directing of attention to important themes may be appropriate, it must be acknowledged that the emotional response by the student may be one of loss of motivation leading to reduced authenticity in the engagement in reflection. The model of learning and assessment in Section 9.1.2 argues that the relationship between the student and the MKO is one of co-construction i.e. a collaborative and bi-directional development of knowledge and understanding. The proposal, then, is that any directing of attention should be informed by a recognition of readiness or proximity. That is, the MKO must attend to the ideas which are accessible to the learner in the RDP. Hudson (2015) argues that the learner in this situation can be viewed as the MKO, having the greater knowledge of her/his own learning needs. The following set of characteristics of assessment design seeks to strengthen and stabilise reflection by responding to this tension. The proposal is that the required assessment strategy should provide external triggers for reflection whilst, at the same time, promoting awareness of and valuing internal 'germs'. It should also provide opportunities to discuss 'problems' as they arise, promote informal jotting of personal reflection, and facilitate reviewing and further 'churning' around jottings and discussion. Other characteristics include the progressive development of the churning around jottings and discussion to incorporate supported attention to the external requirements and collaborative sifting and selecting of informal jottings for the construction of a response to the summarising stage. Finally the design should acknowledge and emphasise the point that the summary is a record which

captures, at a fixed point in time, the progress so far in professional development which is ongoing, reinforcing the point by valuing the summary as an opportunity to engage in dialogue about ongoing developments such that feedback contributes to the further development and forward planning.

9.4 Hence, a proposed assessment strategy to develop reflective practice

In this section a theoretical model is proposed for an assessment strategy which may be adopted within a course design or development process. However, although the strategy is owned and managed by the course developer at that stage, there is dependence on the attitudes and behaviours of the course team (Gammon and Lawrence, 2006:134, Bloxham and Boyd, 2011:129-134). That is, whilst the learning outcomes, assessment criteria, assessment task, time and timings lie within the control of the course developer, the briefing, guidance, marking, and feedback are the domain of the course tutors and/or mentors. Hence the proposal assumes that the course team are able to adopt the principles of Section 9.3.2 and to understand their role in the course assessment strategy.

The aim of the assessment strategy is to develop reflective practice (a dynamic cyclic process) by supporting students to construct and submit assignments (static products). Furthermore, the products must satisfy the demands of two 'masters', the academic standards and the professional standards, each of which has different priorities and different 'level' characteristics. (Levelling is a process of norm- or criterion-referencing.) These two sets of standards are often categorised as belonging to 'theory' and 'practice' domains of knowledge respectively and are often conceptualised as having a one way relationship such that theory precedes and informs practice. The assessment strategy seeks to challenge and dispel that construct at a fundamental level, replacing the theory-practice rhetoric with a discourse of personal and professional collaborative theorising. In what is, at present, merely an aspiration and a theory of possibilities, the strategy incorporates internal reflection, reflective writing and reflective dialogue to blend the learning processes and connect the knowledge networks which are constructed in response to all elements of the course.

The purpose of the assignment (the product), however, is to demonstrate the current 'level' of knowledge constructed at a pre-determined point in time (this aspect is beyond the control of the actors). The product is the source of evidence of the required knowledge and skills (the 'learning outcomes') and the student is informed by the assignment brief about what knowledge and skills must be demonstrated. Because it is the product that determines the outcome for the student, it is the product which is the focus of students' attention and

energy. The aspirational assessment strategy must, therefore, devise characteristics of the product which are dependent upon engagement in the desired processes. In their investigation into the use of portfolios in teacher education, Imhof and Picard (2009) support this notion of dual purposes, but note that there is insufficient “research on the efficiency of the instrument” (p.150). The practical considerations for implementing this theory in practice are considered in Chapter 10.

9.4.1 The learning outcomes to be assessed

The complex nature of the learning outcomes for a course of ITE has underpinned the theoretical model on which this work has been based. However, in designing a course of ITE, these intended learning outcomes must be encapsulated and articulated in a manner which satisfies external moderators and institutional conventions. The complexity of the task is recognised, for example, by Baartman, Gilikers and Dijkstra (2013), Kamphorst *et al*., (2013), Boud and Falchikov (2007), Robinson (2004:109-113), Winter (2004). From Section 9.1.2 the intended learning outcomes must allow for flexibility such that the actual learning outcomes are matched to the learning and developmental needs of the individual and, at the same time, aligned to the threshold standards for the qualification. In addition, there is a requirement for clarity about the role of reflection, whether reflection is a learning outcome or a process for learning. Moon (2006:110) notes the common confusion in both tutors and students as to what, in reflective writing, is to be assessed. That is, there is a need to be clear about whether it is the process of reflection, the academic standard of the written artefact which is a product of that reflective activity, or the “in-depth knowledge and understanding of their profession” (QAA, 2010:15) which is to be assessed. This is an issue which was identified by Imhof and Picard (2006) and Zeichner and Wray (2001) and by Mills (2013:364), who found this to be problematic within a similar course in my institution, where the focus on assessing the end product obscured the reflective thinking processes which were the espoused intentions of the assessment approach. In this theoretical model for an assessment strategy, it is proposed that the learning outcomes are primarily developed around knowledge and understanding of the profession, integrating the academic and professional requirements, whilst incorporating language which establishes expectations of the manner in which that knowledge will be developed. The learning outcomes which have been developed for a new course of teacher education were written in response to this proposal and have been included in Appendix 26. However, this aspect remains problematic and has become an aspect for further study as I look forward to next steps in Chapter 10.

9.4.2 The assessment criteria

Findings have shown that both the criteria in use during this study and the W&M2 criteria can be used to locate evidence of reflection in reflective writing. However, whilst the institutional criteria have been mapped to the academic requirements of a course at the appropriate level (the *FHEQ Level Descriptors*), the W&M2 criteria have not. The Swanwick *et al*. (2014) work is helpful in supporting the argument that such a mapping is feasible, and Raiker (2010) trialled a similar mapping for use within this institution. In both of these works alignment was found between academic level descriptors and characteristics of reflective thinking. In addition, Watts and Lawson (2009:612) concluded that the original W&M rubric had been employed effectively to improve the level of reflection in the reflective writing of student teachers, an approach which Ward and McCotter (2004) suggested in the conclusions to their work. In a similar study Fleck (2012) argued that "rating reflection in this way can enable new tools or techniques for supporting reflection to be explored over time, across similar situations or with adaptations, and to build understandings of how reflection is being most effectively supported" (p.439). Whilst I am persuaded that characteristics of reflective thinking can be (and already are) embedded in academic assessment criteria and I find viability in the use of the W&M2 descriptors as a rubric for the analysis of reflection manifested in written work, I am exercised by the connection between the development of levels of reflection, the development towards the intended learning outcomes and, like Baartman, Guilders and Dijkstra (2013) and Clarke and Moore (2013), the relationship between professional standards and academic outcomes.

One of the key premises of the work by Price *et al*. (2011) was the place of dialogue between tutor and student in developing understanding of the assessment process and 'standards'. Hence there is some support for a similar approach, building on the proposal for supported attention to the external requirements and collaborative sifting and selecting of informal jottings for the construction of a response to the summarisation stage of Section 9.3.2, to include a direct consideration of, and critical engagement with, the assessment criteria. However, in the findings, there is evidence of instrumentalism in students' engagement with the criteria and this, argues Torrance (2007), is in common with other students in HE. In his findings he describes a cycle in which "the instrumentalism of learners both drives and validates the level of tutor support [reinforcing] tutor moves to focus on grade criteria, the elucidation of evidence etc." (p.290). National and institutional expectations, although subject to criticism (Price *et al*., 2011; Bryan and Clegg, 2006; Torrance, 2007), demand that assessment criteria are mapped explicitly to the intended learning outcomes i.e. to knowledge and understanding of the profession. My theoretical position from this discussion is that the characteristics of reflection are integrated with the

characteristics of demonstrated knowledge and understanding of the profession. However, like Baartman *et al*. (2013), I find the integration of the professional 'standards' problematic and have identified the need to pursue this aspect further alongside the next steps already identified in Section 9.4.2.

9.4.3 The assessment task

The task should be sufficiently flexible to encourage self-selection of germs for reflection but with stabilisation and strengthening of reflection through the dialogue with tutors, mentors and peers. Darling-Hammond and Snyder (2000) propose a framework and tools for "authentic assessment" (pp.527-534) which seek to position assessment as contributing to teacher learning by optimising the use of experiences in practice. As Mason (2004) says, the aim is

> "not to ease students through an ordeal, but rather to stimulate them to using their powers to make sense, to see things freshly, to make the obvious problematic, to challenge and be challenged, to alter the locus and focus of their attention".
>
> (p.142)

The rationale for the use of reflective writing was addressed in Chapter 6 and supported within the conclusions earlier in this chapter. A useful summary is provided by Zeichner (2001) as to

> "encourage student teachers and teachers to think more deeply about their teaching and about subject matter content, to become more conscious of the theories and assumptions that guide their practices, and to develop a greater desire to engage in collaborative dialogues about teaching".
>
> (p.614)

However, the proposals from Section 9.3.2 should be taken into account. The assessment task should, therefore, incorporate reflective jotting about experiences within teaching practice, dialogue through which the ideas are shared and developed (Hatton and Smith, 1995; Yost, Sentner and Forleza-Bailey, 2000), time for sifting of ideas and selection of priorities, and supported progression from 'writing for self' to 'writing for others'. This approach is summarised usefully by Shepard (2000:10) in her interpretation of dynamic assessment, in which she proposes that assessment should "be moved into the middle of the teaching and learning process", establishing an interactive process in which teachers engage with learners in their response to the assessment task. She argues that this approach

> "does more than help teachers gain valuable insights about how understanding might be extended. It also provides perfectly targeted occasions to teach and provide the means to scaffold next steps."
>
> (*ibid*.)

Although self-evaluation is a core aim of reflection there is some evidence that, in promoting self-evaluation and target setting, the task causes the student to focus inwardly on self with little evidence of considering others' perspectives or impact on pupils, leading to an impression of technical reflection. The argument of Malthouse, Roffey-Barentsen and Watts (2014) supports this. In their review of examples of 'reflection', they observe that "usual expressions and examples of reflective practice were too individually self-referential" (p.599). The task design should therefore focus attention on the influence of self on others as a fundamental element of reflection on practice, moving towards Loughran's (2002:84) image of interconnected reflection and practice (Section 4.8.3). Whilst Alger (2006:300) positions the responsibility for this as lying solely with the course and tutor, there are others who advocate a significant role for peers (Loughran, 2006:139-146; Yesilbursa, 2011b, Arnold *et al*., 2012:282) in order to move learning activity beyond private reflection and into "professional dialogue, critique and inquiry" (Loughran, 2006:142).

9.4.4 Timescale and assessment 'type'

The assessment task must allow "good and appropriate time necessary for the risky political act of reflection, not merely the immediate technical evaluation of practice" (Iredale *et al*., 2013:197). The W&M2 criteria describe a situation where "situated questions lead to new questions" and "long-term ongoing inquiry" and this was an aspect which was difficult to locate within the samples investigated in this study, due to the summative nature of the brief for the writing. Moon (2006:120) advocates a process in which ongoing commitment to reflective writing is established as an expectation of assessment tasks by requiring regular sharing with tutors, not for 'marking' but as a mechanism for assuring engagement. Consequently, the task must encourage changing priorities over time, recognising and valuing the evolutionary nature of reflective practice. Arnold et al. (2012) propose projects which

> "encourage the full extent of imagination, deep conversation and listening, exploring patterns and structures of language, thought and process, seeking connections between different ideas and objects, moving in cycles of theorising and action and situating knowledge and concepts within the sociocultural map of investigation".
>
> (p.286)

Time is equally important to support the progressive development of the reflective writing through which the reflections are communicated (Ryan, 2014). Furthermore, time is required

for reflective dialogue, both with self (Moon, 2006:92) and with others. In their discussion of the interactions between assessment, learning and empowerment, Leach, Neutze and Zepke (2001) note that “critical reflective knowing […] is established by means of rational debate between different viewpoints that examine all assumptions and their consequences” (p.297). Ryan (2014) argues that the process of constructing writing, reviewing and reconstructing it affords significant developmental possibilities including increasing self-awareness and reflexivity. Hence the assessment should take on the form of an extended project, with opportunities for sharing and augmenting, rather than an isolated ‘essay’.

9.4.5 The role of the tutor

It has been argued that reflection has the potential to serve as no more than rationalisation, (Loughran, 2007:131) or affirmation (Warhurst, 2008:3) i.e. to systematically locate evidence and/or justification for actions taken, decisions made and other aspects of practice and this was supported in the instances of ‘routine’ and ‘technical’ reflectors in the participants in this study. This important observation provides a clear purpose for engagement in reflective dialogue with others, rather than solely with self (Alger, 2006:299). However, the role of others must be considered from the perspective of interpretivist understandings of the nature of knowledge and the influence of power relationships on the expectations and intentions of that dialogue. Teacher development, argues Dewey (in Archambault, 1964) should provide "the best opportunities for the exercise of native capacity". It is not a question of "suppressing or superseding, but of cultivating native instinct, of training natural equipment to its ripest development and its richest use." (p.199). He proposes that practice must be "based upon rational principles, upon insight into facts and their meaning" in order to develop effective teaching and argues that there is "power in grappling with the new and untried" (p. 201). The primary aim of the tutor is to support the student teacher in using the process of writing and sharing reflective accounts as a source of professional improvement (Crowe and Berry, 2007: 38-39). The aim of reflective dialogue should be to give the learner access to the “realm of developmental possibilities” (Cobb, 1995) by addressing or introducing “conflict” and “surprise” (Biggs, 1996:349). Hence the tutor must be viewed as a more experienced other, which is not the same as a more knowledgeable other. The tutor is positioned in the same way as Malthouse’s (2014) researcher as “an enabling co-construction” (p.599). “Real change”, says Mason (2004: 144) “requires the support of a compatible group of people […] who provide both a sounding board and a source of challenge”.

However, the power of influence which the tutor holds due to her/his authority as the ‘judge’ and through the content and manner of communication with students is well-documented in

the literature (Leach, Neutze and Zepke, 2001; Olmstead, 2007:139, for example) and supported by the findings of this study. In the proposed strategy, then, the tutor should contribute to the interpretation of written documents (the assessment briefing and criteria, written feedback, published work, policy documents, etc.) in addition to reflection on practice (Knight and Yorke, 2003:46-67; Boyd and Bloxham, 2011:66-80). It is the tutor who is in a position to recognise and address anxieties around an unfamiliar approach to assessment or about reflective writing and its distinctiveness from previous experiences of academic writing, the students' desire to model own work on exemplars from others or to compete with others, or a concern with what is 'fair'. Each of these situations is an opportunity to model and develop reflective habits. Hence the tutor has a responsibility to reflect in the moment and manage discussions in such a way as to support the learner in bi-directional construction of learning. Loughran (1996) notes the importance of the "teacher educator's commitment to, and valuing of, the writing and thinking necessary in maintaining a journal" (p.8).

In responding to students the tutor has the opportunity to direct the focus away from self and towards other considerations. As Dewey (1910:122) says, "selecting the pertinent facts from the entire experience under consideration requires good judgement. Intensity or vividness or conspicuousness" cannot be relied upon. Equally, the most significant facts may be the least evident or obvious. The indicators of high levels of reflection specified in the W&M2 criteria include a focus on students [pupils] and how they learn and "personal involvement with fundamental […] concerns and how these impact students and others". Schön (1988) proposes that

> "instructional supervision […] can be usefully understood as a kind of coaching. Through advice, criticism, description, demonstration, and questioning, one person helps another to practice reflective teaching in the context of the doing. And one does so in a Hall of Mirrors: demonstrating reflective teaching in the very process of trying to help the other learn to do it."
>
> (p.19)

This, then, he argues "is to contribute to a healing of the breach between research and practice that has long plagued schools of education" (*ibid.*)

9.4.6 Four principles for a theoretical model for assessment

In summary, there are four principles which define an environment in which to develop this theoretical model for assessment which develops reflective practice:

- An enabling institutional assessment strategy in which there is flexibility to match the intended learning outcomes to the learning needs of individuals
- A creative course assessment strategy which embeds reflective dialogue between tutor and student as a core element of assessment practice
- A reflexive and interactive tutor assessment strategy in which tutors and mentors engage in responsible co-construction of learning with the students
- An open-minded student assessment strategy in which students, with support, recognise the value of personalised assessment activity.

10. CONCLUSIONS AND IMPLICATIONS FOR FUTURE PRACTICE AND STUDY

The aims of this chapter are to review the outcomes of the study at the end of two cycles of action research, to offer a response to the research questions and to consider the contribution of this work to my developing practice. In addition, the chapter offers a view of the relevance of this work to initial teacher education in other contexts. However, these responses tend more towards new questions than proposals. Hence the chapter concludes with a plan for implementing the findings so far within the design of a new course and for systematically evaluating the impact of the changes through a third cycle of action research. I conclude that there is a need to learn from the practice of other providers of teacher education. Hence the chapter sets out a plan for engagement with colleagues across the sector through professional networking opportunities and moderation activities. In this way it is hoped that the study makes some contribution to the current debate about the place of HE and the nature of the programme for teacher education.

10.1 Conclusions pertaining to the research questions

The research questions for this study were reviewed and revised at the beginning of phase two. The subsequent questions were:

- What are the factors which influence student teacher engagement with the reflective writing tasks which are compulsory elements of their teacher education programme?
- To what extent does a student teacher's reflective writing portray her/his reflective practice?
- Is there a connection between a student teacher's reflective writing and her/his professional achievement?

In the following sections, each of the cycle two research questions will be addressed.

10.1.1 Factors which influence student teacher engagement with the reflective writing tasks

The manner in which the student teacher engages with the reflective writing tasks is shaped by that student's perceptions and beliefs (Shepard, 2000:6; Moon, 2006:120). In this study, two areas of particular influence were perceptions of the power or authority of tutors, mentors and self in the assessment process and perceptions of the purpose and intentions of assessment tasks. For many students (and tutors), assessment is conceptualised as

summative testing which is defined by right or wrong answers, explicit unambiguous criteria and objective verifiable judgments (Wyatt-Smith and Klenowski, 2013; Gibbs, 2006; Leach, Neutze and Zepke, 2001). The tutor as assessor has the power to pass judgement and award a grade or level to the work submitted for assessment by the student and there are patterns of behaviour and language evident within courses of initial teacher education which serve to reinforce this, such as referring to a lesson as a grade 2 lesson, or a piece of written work as 'master's level'. As Leach, Neutze and Zepke (2001) observe, "to impose a unitary view of near-objectivity on the assessment process is to require the learner to conform to the reality of the assessor" (p.296). Therefore, in presenting an assignment which is entitled 'reflective writing', there is the potential to establish an apparent dichotomy. As Cotterrill, Bradley and Hammond (2006:197) observe, how can an assignment which is defined by a set of precise criteria incorporate elements which are personal and interpretative? The perceptions of the students who were participants in this study provided an illustration of the potential effect of this discord on attitudes and approaches to the task.

10.1.2 The portrayal of reflective practice through reflective writing

The findings of this study have indicated that it was possible to demonstrate characteristics of reflection within a written response to the task which had been set, including indicators of 'transformative' reflection, the level which had been positioned as 'highest' in the rubric. However, the findings also showed that there were participants who felt that their reflection was not adequately represented in their written responses, due to perceptions of constraints in the requirements or beliefs about expectations. I conclude that there is a need to recognise the significant influence of the preconceptions and patterns of prior experience identified in Section 10.2.1 and to support students to adapt to possibly unfamiliar expectations by producing writing which is genuinely framed by their real and current reflections. However, the notion of a new lens through which to view 'reflective writing for others', which was offered by Moon's (2006:127) discussion, is helpful because it offers a new way of positioning that reflective writing as contributing to knowledge about practice. Whilst the original research question asked to what extent a student teacher's reflective writing portrays her/his reflective practice, I am now drawn to a position which challenges the question itself because, in asking that question, I inferred that the purpose of the writing was to portray or provide evidence of reflective practice. There is connection here with the earlier discussion about reflection as a process and the writing as a product (Ryan, 2014; Walsh, 2007:80).

There is a further dilemma because the above response addresses the portrayal of 'reflection' in the written submission whilst the research question was concerned with

'reflective practice'. In seeking knowledge about the reflective practice of individuals by examining their written responses, I explored possible connections between reflection and practice and concluded that there was nothing to suggest a constructive relationship. Furthermore, there was some evidence that the two aspects were working in opposition, with a clear group of students who appeared to have demonstrated low level reflection in the assignment whilst achieving high grades for their professional achievement. This finding causes me to question whether the assignment does contribute to professional development as had been intended but also raises an uncomfortable question about the possibility that those who engaged genuinely in reflection were distracted from their development of practice by the assignment.

10.1.3 The connection between reflective writing and professional achievement

In addressing this question, the data do not provide a tidy endorsement of the literature. However, what appears to be disagreement has been used to provide further insight into the manner in which teacher education practice might be improved, leading to a proposal for the next cycle of this action research.

There is a conviction expressed in the literature that reflection can be a fundamental element of improving teachers' professional practice (Zeichner, 2001; Alger, 2006; Senese, 2007), although there are those who see a need for further research in this area (Luttenberg and Bergen, 2008:543, Fendler, 2003). Much work has been done to develop frameworks by which to identify qualities of reflection in the medium of reflective writing, and there is a strong argument from the literature that writing serves to promote and sustain purposeful reflection, to share that reflection with others and, thereby to provide a basis for reflective dialogue. However, the data from this study do little to support those common beliefs, with some participants demonstrating apparent connectivity between the qualities demonstrated in the reflective writing and professional achievement whilst others appeared to present a conflicting image in which evidence of reflection and achievement in the professional standards were in opposition, one strong and the other weak. The argument and evidence in the literature is persuasive, and my personal experience endorses that argument. Furthermore, the cases in the study provided insights about other factors which had influenced perceptions and priorities and which may, therefore, have affected the capacity of the student to demonstrate purposeful reflection on improving practice within the reflective writing assignment. The various 'pulls' on a student teacher during the course were summarised by Alexander (2008:43) as "principle, pragmatism and compliance", and it is these other factors which must be addressed in the ongoing development of my practice as a teacher educator.

I conclude, then, that there is a connection between written reflection and professional achievement and that, in my current practice, this connection must be developed further in order to more constructively align the two.

10.2 Conclusions pertaining to the aim of the study

The aim of this study was to establish a framework for assessment in teacher education which satisfies the academic demands of a postgraduate award and at the same time engages student teachers in meaningful learning activity which contributes to their development as professional teachers. The intended outcome was a proposal for an approach to assessment in the design of courses in teacher education which:

- enables student teachers to satisfy the professional requirements
- promotes a sustainable commitment to learn more about teaching and to improve practice
- maximises learning activity which is authentic and purposeful.

In reviewing the theoretical model in Chapter 9 I had expected when I began this study that I would show that the outcomes set out above had been achieved by reference to the review of the literature and the findings from both cycles of the research. It is, perhaps, unsurprising that the findings and conclusions of the research have led, not to an innovative assessment strategy which satisfies the aim, but to new proposals for development and further questions to be explored. Reflecting on this type of outcome as typical in educational self-study research, Bullough and Pinnegar (2001) described it as an “ironic hero story” because it “allows a focus on the failed, the difficult and the problematic and does not require the tragic end of the heroic romantic return” (p.18). The description sits well here in that, although I cannot claim to have demonstrated that the approach to assessment used achieves those objectives, I am able to offer further insight about the barriers to achieving that aim and, thereby, to propose a theoretical model on which to build.

10.2.1 Redefining the notion of ‘framework for assessment’

I have previously defined a framework as “an organisational tool which provides structure and categorisation” and within this study there has been a significant focus on developing and then applying a particular type of framework, an assessment criteria rubric, to identify indicators of reflective practice within samples of assessed reflective writing. In aiming to develop a ‘framework for assessment’, then, I have shaped the study with a particular focus on a framework of assessment criteria. However, in addressing the research questions, it

has become apparent that this focus has been limiting in that there has been insufficient consideration of the full assessment experience of the participants. Participants offered insights into the influence of assessment task design, guidance and feedback, all of which form part of the assessment experience and therefore, by the principles of constructive alignment, contribute to the learning activity on the course. These insights gained from participant views are supported by the findings of other researchers within the literature explored (Gammon and Lawrence, 2006; Knight and Yorke, 2003:64-66; for example). In reviewing the aim, then, it is concluded that it is necessary to define the scope of the proposed 'framework' such that it offers a structure for assessment which encompasses the full assessment strategy. The proposed structure demands further investigation, to ensure that it is grounded and justifiable. To that end, the third cycle of this action research study will seek to learn more about course and tutor assessment strategies in courses of teacher education and to evaluate the impact of a newly designed course assessment strategy which is developed from the theoretical model of Chapter 9.

10.2.3 Challenges for the implementation of the assessment model

Based on the findings and my reflections, I developed a theoretical model and concluded that there are four broad principles which underpin that theoretical model for assessment which develops reflective practice (Section 9.4.6). A number of challenges are anticipated in implementing this theoretical model. These relate to the specification of the learning outcomes and assessment criteria (Moon, 2006:114, Baartman *et al*., 2013:992), the design of a task which promotes sustained engagement with reflective writing (Moon, 2006:120), student difficulties with new approaches to assessment (Leach, Neutze and Zepke, 2001; Gibbs, 2006) and with understanding the learning intentions of the assessment (Bloxham and Boyd, 2011), the tutor acceptance of and commitment to implementation of new approaches (Bloxham and Boyd, 2011) and the explicit and latent tutor assessment strategies (Knight and Yorke, 2003; Wyatt-Smith and Klenowski, 2013).

10.3 Conclusions pertaining to the methodology

By reframing the study as action research I have opened my practice and that of my colleagues to criticism by the students and scrutiny by others and acknowledged the need for change. In an unplanned way I have modelled the practice which I expect of the students on the course, experienced the disturbances which arise in the analysis of practice and constructed new knowledge in the manner advocated by the course. Similarly, the adoption of the reflective log as a research tool was a source of personal insight in a number of areas, including organisational issues, concerns about the audience for whom I was writing and

clarity of purpose. It was my own engagement with reflective writing, for example, which resulted in the recognition of the way in which my writing changed when it was no longer personally owned and of the anxiety about other readers' perceptions of me or about my ability to communicate my thoughts clearly and accurately. The action research and reflective log have, therefore, contributed to a personally constructed understanding of the experiences of the participants. I have acknowledged the position of power which has the potential to compromise the quality of the action research (Dillon, 2014), by assuming the authority in making sense of the findings. I have addressed this risk by adoption of the reflective log and by sharing my interpretation with peers, thereby recording and surfacing the conflicts and responses (Kincheloe, 2004:47-48) adopting a stance of 'critical praxis' towards myself, "whereby [my] understandings, biases and current practices are challenged and changed" (Arnold *et al*., 2012:291). One possible improvement to this potential discord with my espoused beliefs would be to ensure, in future cycles of this research, that participants are consulted to test my interpretation of their responses.

10.4 Relevance and contribution to knowledge in Teacher Education

10.4.1 Relevance

The development of this study has spanned a period of significant change in teacher education in England and this is exemplified by the announcement by the current Secretary of State for Education, only days before the submission of this thesis, of the appointment of a working group to develop a framework of the core requirements for ITT (DfE, 2015c). This announcement is a response to the *Carter Review of Initial Teacher Training* (DfE, 2015a) which found a lack of clarity about the components of a programme of ITT and about the contributions made to that programme by HE. A conclusion of the original review report (*op. cit*.) was that "ITT has a crucial role in instilling the importance of evidence based teaching in new teachers" and that new teachers must "understand how to interpret educational theory and research in a critical way" and to challenge "false ideas about how children learn [which] are prevalent in education" (p.53).

During the same period, the *Inquiry into Research and Teacher Education* (BERA-RSA, 2014) has argued that teachers, including pre-service teachers, should be equipped "to investigate the impact of particular interventions or to explore the positive and negative effects of educational practice" (p.11). In a model which has similarity to that in Figure 6.1 of this thesis, they identify 'subject and pedagogic knowledge', 'practical experience' and 'research literacy' as the "dimensions of teacher effectiveness and teachers' professional identity", overlaying research literacy to show research underpinning both of the remaining

two dimensions and defining the central intersection as “teacher as professional” with the “capacity to integrate knowledge from different sources and apply and adopt in practice” (p.10). The report recognises reflective practice as an aspect of research literacy (p.11) and as a contributor to knowledge within the profession (p.16).

There is endorsement, then, in the most recent policy and research findings about teacher education, for the view that I share with Yost, Sentner and Forlenza-Bailey (2000) that pre-service teachers should be provided with the education which empowers them to engage in critical reflection (p.47). In addition, I am convinced by the works of Raiker (2010) and Swanwick *et al.* (2014), both of which indicate a clear connectivity between reflection and critical thinking and therefore establish a place for reflection in working towards an HE award.

10.4.2 Contribution to knowledge about teacher education

This study has explored the impact of practices which were established with the intention of providing the resources and the space for the type of reflection described above. Like Fund, Court and Kramarski (2002), I have found “little research evidence to show that the use and enhancement of reflection has actually been achieved” (p.486). Demonstrating “self-reflective consciousness and emancipatory action” (Arnold *et al*., 2012:286), I have concluded that the practices may not be achieving the purpose for which they were designed and I therefore offer a critique of current practice in this institution, a practice which has much in common with that of other teacher education providers. The relatability (Norton, 2009:63-64) to other institutions is based on observations made by myself and colleagues arising from the natural benchmarking of practice which is part of the role of external examiner or external reviewer and will be explored further through the sharing with, and interrogation by, peer reviewers (see McAteer, 2013:123) in workshops and dissemination opportunities which have been scheduled following the completion of the study (Appendix 27).

Although Biggs (2007) espoused a focus on the alignment of “all components in the system” (p.27), his emphasis on learning outcomes and assessment criteria appears to have served as a distraction for much of the subsequent application of his work, such that the focus on teaching methods has been lost and other components, such as the assessment strategies of the various actors within the system, are forgotten. My own work, viewing the theory from a social constructivism perspective, explores the role of the various actors within an assessment experience and develops a model of socio-constructive alignment of assessment design. The work, therefore, contributes to the development of institutional

practices, causing me to adapt current assessment practice in the existing course and to implement modified strategies in new courses as they are developed. The conclusions have directly influenced the design of a new undergraduate teacher education course which has been approved for 2015-16. However, questions about ways to introduce and employ reflective writing for constructing professional knowledge and about the impact of assessing reflective writing remain. Shepard (2000) positions the type of approach to teaching and assessment sought in this study as "an idealization" arguing that, although there is "a basis in theory and empirical studies" it is not known "how they will work in practice" (p.12). Her observation is encouraging, given the difficulties encountered in the work so far and the challenges anticipated. In addition, she supports my view that "the vision should be pursued because it holds the most promise of using assessment to improve teaching and learning".

The work also has the potential to contribute to the practice of other providers through the honest dissemination of findings and the sharing of experiences which might ensue from that. This is an area in which there is recognition of a need for further study (Imhof and Picard, 2009). At a time when the sector and the country are actively searching for agreement, this sharing is part of the national debate about a curriculum for teacher education and, linked to that, asks questions about the contribution of HE and about what is to be assessed and why, in order to achieve an educational award linked to initial teacher education.

10.5 Next steps

Set against a national context in which time to reflect is being written out of teacher education as a consequence of policy which locates teacher education increasingly within the busy-ness of school life, I remain persuaded by principles of constructive alignment and, therefore, troubled by student teachers' perceptions of complex assignments which appear to have little relevance to their practice as teachers. I have undertaken an action research (McAteer, 2013; Norton, 2009; and Wells, 2001) study, beginning with a conviction that it is possible to design assessment tasks which truly integrate professional and academic requirements and influence the learning activity of student teachers in ways which are meaningful for their development as teachers. The study aimed to establish a framework for assessment in teacher education, building on the work of Ward and McCotter (2004), which satisfies the academic demands of a postgraduate award and at the same time engages student teachers in meaningful learning activity which contributes to their development as professional teachers.

As a direct consequence of engaging in the study, I have come to view the student teacher experience from a socio-constructivist perspective, leading to greater insight into the impact of established assessment practice on the learning activity of student teachers and a questioning of my own practice and the limiting factors embedded within it. The originality of this work lies in the questioning of established local practice and the absence of other studies into the effects of assessment practices in HE teacher education programmes from which to inform that practice. Crucially, the notion of a 'framework for assessment' has been broadened to encompass all assignment related activity, the people involved and the timeframe, in addition to the task and criteria. It is this broader view of assessment frameworks and the commitment to embedding time and support for reflection within teacher education that have shaped my aspirations for future development and my curiosity to learn more.

There are two areas of development which will be pursued as a direct result of this study. These relate to the opportunities to implement the theoretical model from Chapter 9 in the design of a new course and opportunities to learn more about the practice of other colleagues and other institutions to inform my understanding and to benefit from their experience. New questions have emerged as a result of the findings and these will form the basis of the ongoing study. Is it possible to design assessment tasks which truly integrate professional and academic requirements and influence the learning activity of student teachers in ways which are meaningful for their development as teachers?
If not through constructive alignment of assessment, how can we build time for reflection and opportunities for socially mediated reflective discussion into programmes of teacher education?

10.5.1 Implementing the theoretical model in the design of a new course

The findings of this study have been used to develop a course assessment strategy for a new course of undergraduate teacher education approved for a 2015-16 start. Although this study was situated within postgraduate teacher education and, therefore, the requirements for the award differed in terms of academic level, there is transferability due to the common professional requirements. Furthermore, there is an opportunity to undertake a longitudinal study of student teacher reflection and professional development over three years and to incorporate, within the study, consideration of the tutor and mentor engagement in reflective dialogue and the relationship that the dialogue has with assessment outcomes.

10.5.2 Learning from colleagues

I conclude by identifying a desire to know more about the national view of assessment in teacher education as articulated in the practice of other HE institutions. Through the TEAN and BERA annual conferences, I have been given opportunities to establish a network of colleagues in order to explore ways in which counterparts in other teacher education institutions are supporting student teachers to develop reflective practice and assess reflective writing.

APPENDICES

Appendix 1

1. Extract from the assessment brief for the Reflective Teacher unit

Requirements of the task
The written submission consists of two elements:

Part 1 - Reflections against Pedagogic Themes
You are required to reflect using the themes provided below (650±50 words for each of the first 3 themes). Your writing on specific focus areas will be assessed formatively during the course, to support you in understanding the requirements of the task and knowing how to improve.

Part 2 - (a) Further/continued themed reflections (1300±100 words)
You can either:
Develop your reflection around two further themes from the list provided (650±50 words for each of these 2 themes)

OR

Reflect around two themes identified from your personal action plans e.g. an area of strength in your practice and an area of development in your practice (650±50 words for each of these two themes)

OR

Develop and deepen your reflections around two of the three themes that you wrote about in part 1 (650±50 words for each of these two themes)

Part 2 - (b) A critical self reflection (1700±100 words)

1. You should reflect on the value of being a reflective teacher and the reflective processes that you have utilised throughout your teaching practice, and in this reflective writing work. You should justify the themes that you have chosen to reflect upon as evidence of your reflective capabilities, together with reading and evidence from your school based training. (600±50 words)

2. By reference to the characteristics of a graduate teacher (as listed below), select one or two areas and explore aspects in which you have made progress and subsequent ideas relating to how you might progress each aspect further (1100±100 words).
   You should ensure that you include analysis of incidents from your practice, a selection and review of relevant reading and consideration of ways in which these are interconnected.
   Remember to adopt an attitude of critical analysis, evaluating the impact of theory in the context of your teaching practice, and analysing evidence from your practical experience to inform your future actions.
   Tutorial and peer feedback will be used to support you in improving your writing before submission for this unit in January.

Appendix 2

2. Extracts from Reflective Log – Paradigmatic Challenges

Paradigmatic challenges

Reflection 16/06/14

As this research develops it becomes increasingly clear that my place as researcher is within, rather than external to, the context of the study.

More than that, it is the living in it which enables me to understand it.

Through discussion with Andrea, since beginning this entry, I have formed a clearer image of what is meant by 'social constructivism'. The phrase 'negotiation of meaning' comes to mind and is helpful in dealing with questions like: "Does it matter how I label my methodology if I am working within an interpretivist paradigm?" and "Is it possible to agree on the meaning of 'validity' (for example) if we are adopting and interpretivist paradigm?". These questions are, I think, following a path which educational researchers have travelled before, which has been presented as the "paradigm wars". There is connection with the question about whether it is possible to claim objectivity in research in which the data are qualitative and the researcher has a role and/or a locus within the context of the study.

Why do we feel the need to classify our research methods? Surely the point is to match the methods to the aims of the study and justify that match. To what extent do we constrain ourselves if we align ourselves to a qualitative/ quantitative/ mixed method approach? So, for me, I will resist positioning myself in that way. Which means I must be prepared to defend that position and reference established influences. Recommendation is to read the methodology chapters in theses and see Hammersley on YouTube. Useful slide from the presentation p. 6 slide 2

In fact, as soon as we start to attempt to clarify the distinction between qualitative and quantitative research we get stuck because we attribute qualitative research to an interpretive paradigm and discount interpretivism within quantitative research. Interestingly there appears to be an interchange between 'social' and 'qualitative'.

It's important to include consideration of my own perspectives and what they bring to the study. Also important to show rigour and transparency.

Appendix 3

3. Extract from Reflective Log – Lapsed Positivist

Reflection 04/08/14

On Friday 25 July I was redirected to a new stage of my EdD journey as a result of changes to my supervision arrangements. The experience was both exhilarating and daunting, as I found myself challenged in new and more demanding ways to explain and refine my study. At the end of the meeting I was set the task of presenting my research question/s with a deadline of our next meeting.

I was surprised and a little disappointed. I believed that I had stated my research questions clearly in the work presented so far and I read aloud that section of my writing. The message underpinning the gentle but insistent response was clear – emerging from the title and research questions as currently stated are far too many "icebergs" and each would require extensive work to reveal the mass hidden below the surface.

So … I went away on leave with the seed planted and allowed it to germinate as I rested. What are my true research questions? I was reminded that I have revisited both the title and the questions before, when I became aware of a divide between the intentions declared in my writing and the reality of the work I was undertaking. I am becoming aware of a personal resistance to the, perhaps, critical stance to which I find myself drawn and the discomfort experienced when my study is revealing a mismatch between my own espoused theories and the theories-in-use. This is a common phenomenon according to Argyris and Schön, who assert

"*When someone is asked how he would behave under certain circumstances, the answer he usually gives is his espoused theory of action for that situation. This is the theory of action to which he gives allegiance, and which, upon request, he communicates to others. However, the theory that actually governs his actions is this theory-in-use*." (Argyris and Schön 1974: 6-7)

However, how I respond to the realisation will demonstrate my commitment to research which is truly objective and open-minded. I am reminded of Dewey's characteristics for effective reflective practice: open-mindedness, responsibility and wholeheartedness. (Dewey, 1933: 30-32) These have become something of a mantra for me in all aspects of my practice and therefore, I believe, must underpin my research.

There is a connection between this revelation and the recognition of the attitudes, values and understandings which have influenced my espousal of theories to date and have resulted in a shift of ontological perspective. This is hard to explain …. Throughout my teaching career I have first intuitively and then knowingly employed a broadly constructivist epistemology, informing my own approaches to teaching by alignment with the work of Vygotsky in particular. However, as I have travelled the EdD journey I have become alert to a tendency to positivist attitudes in certain other contexts. I have mentioned this already in my writings about the development of a methodology for my study and I now need to test whether my research title and research questions have been subject to similar latent influences.

Appendix 4

4. Extract from Reflective Log – Methods and Methodology

Methods and methodology

Reflection 01/09/14

Do I understand the difference between method and methodology? I understand methodology to be a set of principles – a construct if you like. I suppose it is another indicator of the shift in our understandings of research more generally. I am guessing that, in the realist world, there is one methodology which is correct. I suppose, then, that would be challenged by those who advocate interpretivist ontology, who would argue that an appropriate methodology must be determined according to the nature of the enquiry

Appendix 5

5. Summary of some features of paradigmatic approaches in social research

(Markauskaite, Freebody and Irwin, 2011:31)

	Positivism	**Interpretative**	**Critical science**	**Constructivism**
Research purpose	To discover laws	To understand social meaning in context	To reveal 'hidden', liberate, empower	To understand and change
Social reality	Empirically evident	Socially constructed	Has multiple layers	Multiple, holistic partly constructed
Humans	Rational, individualistic beings	Interacting beings and create meanings	Adaptive beings with unrealised potential	Purposeful, adaptive beings, with a capacity to change
Human agency	Deterministic	Voluntaristic	Bounded autonomy	Collective agreement
Scientific knowledge	Different and superior	Different, but not superior	Imperfect, liberating	Constructed by participants
Explanations	Based on causal laws, deductive	Based on description, inductive	Provide alternatives, critique	Provide basis for change
Results	Can be verified using replication	Can be verified with people being studied	Can be verified through praxis, i.e. Practice	Authentic, can be verified in practice
Evidence	Universal, intersubjectivite	Contingent, contextualised	Informed by theory, goes beyond surface	Consensus, inseparable from knowers
Knowledge	Instrumental	Practical, transcendental	Reflective, dialectical, transformative	Empowering, catalyst for change
Values	Value free, objective research	Relativistic to the values of participants	Research contains a moral-political dimension	Formative, informs enquiry and action

Appendix 6

6. Action research cycles

	Cycle 1 (Pilot study)	Cycle 2 (Main study)
Research question/s	How can I be confident that student engagement with the reflective writing assignment contributes to their development as reflective teachers? *The questions set out with in my pilot study were:* *What do student teachers need to learn in order to improve their practice?* *In what ways can that learning be initiated and sustained through an assessment strategy?* *In what ways can that learning be demonstrated?* *In what ways can that learning be measured?*	What are the factors which influence student teacher engagement with the reflective writing tasks which are compulsory elements of their teacher education programme? To what extent does a student teacher's reflective writing portray her/his reflective practice? Is there a connection between a student teacher's reflective writing and her/his professional achievement?
What is the situation at present and how do I know?	We had recently redesigned the assessment strategy in a response to concerns that: • externally authored evidence that a student has satisfied the minimum requirements of the professional standards was limiting student reflection on the meaning and intent of the professional standards; • entries in student reflective journals had a tendency to be used as descriptive accounts of tasks completed or actions taken to demonstrate competence in discrete professional standards; • ideas and theories from research literature were frequently perceived by students and mentors as abstract and unrelated to practice.	From Cycle 1: • students' responses to the reflective writing tasks appear to be constrained by the design of the assignment task; • the assessment criteria appear to promote a formulaic approach in terms of both structure and content; • confidence with academic writing appears to influence perceptions of the value of the task for improving practice; • suggestion (in student responses and informal discussions with colleagues) that discipline related experiences may impact on confidence and/or competence with academic writing

	The changes were underpinned by an aspiration to promote reflective practice as a characteristic of UoB graduate teachers.	
Action steps	Within the course design: • demote the use of externally authored evidence of meeting the professional standards and promote replacement with a requirement for reflective accounts of improving practice wherever possible; • locate the reflective accounts as high stakes assessment; • incorporate a requirement for engagement with theories from literature.	Within the assignment design: • modify the assignment task to reduce the constraints; • modify the assessment criteria to reduce the imposition of structure and content; Within the methodology: • define particular cases to: - use academic discipline, as a broad indicator of confidence with academic writing; - use the relationship between academic and practice based-achievement as a broad indicator of any connectivity between reflective writing and practice; •acknowledge and record my own reflective practice - as a tool for gaining a personal perspective on reflection and reflective writing - as a mechanism for documenting the emerging and evolving interpretation of findings - to promote habits of critical reflectivity in my own study Within the data collection and analysis methods:

		• analyse the assessment criteria for potential to influence reflective practice.
Evaluate impact of action steps	• Documentary analysis of student reflective writing to locate evidence of reflective thinking. • Measurement of changes in grades as indicator of progress in academic and practice-based achievement. • Questionnaire to students to discover perceptions of the value and reliability of the reflective writing assignment as evidence of professional development.	• Documentary analysis of student reflective writing to locate evidence of reflective practice. • Comparative analysis of grades achieved in reflective writing and practice-based assessment to locate evidence of connection between reflective writing and professional achievement. • Questionnaire to students to discover perceptions of the value and reliability of the reflective writing assignment as evidence of professional development. • Personal reflective log
Revisiting the research question in light of the findings	Student concerns about the constraints of the assignment. Student and mentor concerns about issues arising due to weaknesses in capacity to communicate effectively in writing. Implications of the two points above are that reflective activity is not always represented in the reflective writing tasks. Personal reflections, discourse and subsequent research around the choice of framework for analysis of the reflective writing.	The interchangeability of reflection and reflective writing as a dominant discourse in ITE. The impact of isolating reflective practice as a discrete unit in the design of the course. The non-linearity of developing practice – reflective discourse needs time, space, the flexibility to go off at a tangent ....

Appendix 7

7. Questionnaire for pilot study

1. To what extent have the following influenced your personal understanding of teaching during the PGCE year?

	Strong influence	Some influence	Little influence	No influence
a. ideas presented by tutors during your course				
b. ideas presented by mentors during your course				
c. established theories about how children and young people learn				
d. reading about research into learning and teaching				
e. systematic evaluation of the impact of your teaching				
f. focused reflection (internal) on incidents from your teaching experience				
g. undertaking your own research into learning and teaching				

	Highly representative	Representative	Some connection	No connection
2. In your opinion, to what extent did the reflective writing assignment represent your progress as a developing teacher?				

3. In your opinion, what were the prompts which proved most helpful for initiating reflective writing?

	Very helpful	Helpful	Rarely helpful	Never helpful
a. Incidents arising in your teaching experience				
b. Theories and/or ideas from your reading				
c. Theories and/or ideas from your tutors or peers				
d. Targets for your professional development				
e. Aspects of personal interest				
f. QTS standards				
g. Focus area descriptors				

h. Other (please explain)

4. In your opinion, how effective is reflective writing as a tool for communicating your personal reflections on practice?

Very effective	Effective	Rarely effective	Not effective

5. Please comment on the use of reflective writing as a tool for communicating your personal reflections on practice.

	Very effective	Effective	Rarely effective	Not effective
6. In your opinion, how effective is reflective writing as evidence of your progress as a teacher?				

7. Please comment on the use of reflective writing as evidence of your progress as a teacher.

In order to further explore connections between your responses above and the analysis of reflective writing, it would be helpful to know your name. Giving your name is entirely optional.

In the event that you do provide your name, the responses above will be coded with a unique identifier which will ensure that your identity is protected in all subsequent analysis.

If you are willing, please enter your name in the box below, which will be detached once the identifier has been allocated to your responses.

Your name (optional – please see note above)

Appendix 8

8. Questionnaire for main study

1. To what extent have the following influenced your personal understanding of teaching during the PGCE year?

	Strong influence	Some influence	Little influence	No influence
a. ideas presented by tutors during your course				
b. ideas presented by mentors during your course				
c. established theories about how children and young people learn				
d. reading about research into learning and teaching				
e. systematic evaluation of the impact of your teaching				
f. your personal reflection (internal) on incidents from your teaching experience				
g. undertaking your own research into learning and teaching				

2. In your opinion, which of the following have been most likely to prompt you to reflect on your own teaching?

Please rank from 1 to 8 where 1 is most helpful and 8 is least helpful	Rank from 1 to 8
a. Incidents arising in your teaching experience	
b. Observation of other teachers	
c. Theories and/or ideas from your reading	
d. Theories and/or ideas from your tutors or peers	
e. Targets for your professional development	
f. Aspects of personal interest	
g. QTS standards	
h. Teacher Standards and descriptors	

Other (please explain)

3. In your opinion, how effective is reflective writing as a tool for communicating your personal reflections on practice?	Very effective	Effective	Rarely effective	Not effective

4. Please comment on the use of reflective writing as a tool for communicating your personal reflections on practice.

5. In your opinion, how effective is reflective writing as evidence of your progress as a teacher?	Very effective	Effective	Rarely effective	Not effective

6. Please comment on the use of reflective writing as evidence of your progress as a teacher.

In order to further explore connections between your responses above and the analysis of reflective writing, it would be helpful to know your name. Giving your name is entirely optional.

In the event that you do provide your name, the responses above will be coded with a unique identifier which will ensure that your identity is protected in all subsequent analysis.

If you are willing, please enter your name in the box below, which will be detached once the identifier has been allocated to your responses.

Your name (optional – please see note above)

Appendix 9

9. Assessment criteria for the written assignment

	Level 7 assessment (Masters)												Level 6 assessment (Professional)			
Level 7	**A+**	**A**	**A-**	**B+**	**B**	**B-**	**C+**	**C**	**C-**	**D+**	**D**	**D-**				
Level 6													**D+**	**D**	**D-**	**E (Fail)**
Knowledge of theories of learning and pedagogy	A secure and independent grasp of the significance of a wide range of recent and current research and reading.			Critical evaluation of recent and current research and its impact on own practice A wide range of well-selected reading is evident.			Clear evidence shown of synthesis of recent and current research and evaluation of its impact on own practice. Appropriate reading is selected.			Recent and current research analysed for its implications for teaching. Evidence of analysis of set reading and some other sources.			Effective use is made of set reading and some other sources.			Limited selection of relevant literature used to support the reflections.
Written expression	Articulate, coherent and precise written expression. Accurate referencing throughout.			Well organised reflections with clear and precise expression. Accurate referencing throughout.			Reflections written clearly, accurately and logically. Accurate referencing throughout.			Ideas expressed with clarity and accuracy. Referencing mostly sound.			Written expression adequate to convey meaning but may contain inaccuracies. Referencing mostly sound.			Written expression poor with inaccuracies. Inadequate referencing.
Understanding of learners and the learning process	A comprehensive understanding shown of the ways in which learners learn. Evidence of personally innovative approaches designed to address the needs of all learners.			Critical analysis of own classroom practice informed by a comprehensive understanding of ideas about the ways in which learners learn.			Ideas about how learners learn are synthesised to inform reflection on teaching approaches and the effectiveness of strategies employed.			Some analysis of issues underpinning how children learn. Some evidence that this is used to develop own practice.			Some consideration of issues underpinning how children learn and reflection on ways in which this might be used to develop own practice.			Consideration of issues relating to how children learn rarely selected for reflection.

Application of learning to practice	Evidence that learning from the course has enabled self-direction and originality in the proposal of solutions to complex problems and in the formulation of new hypotheses relating to own practice.	Critical reflection on the learning from the course, evaluating teaching methodologies and using such evaluation to systematically and creatively develop own practice.	Evidence of ability to synthesise different learning from the course in order to increase effectiveness of own practice. Self-direction shown in the proposal of solutions to problems encountered in own practice.	Evidence of ability to analyse different learning from the course and deploy those methodologies likely to increase effectiveness of own practice. Reflection on how strategies implemented impact upon children's learning.	Evidence of an awareness of the relevance of different learning from the course. Some attempt to explore the impact of methodologies from the course in own practice.	References to different elements of the course are rarely selected for reflection, or, they are simple descriptions.
Evaluation of personal and professional development	A rigorous, self aware evaluation of own practice showing secure understanding of areas for continuing development. Autonomy evident in longer term proposals designed to develop strengths and weaknesses.	Critical reflection evident in identification of areas for own development. Self-awareness informs the proposal of solutions to complex problems encountered in own practice. Ongoing review of strengths and weaknesses informs future practice.	Evidence of synthesis in the identification of areas for continuing professional development. Strengths and weaknesses inform targets and review of own development.	Strengths and weaknesses analysed and appropriate targets identified. An understanding shown of own needs for continuing professional development.	Evidence of an awareness of personal strengths and weaknesses. Some attempt to set targets for own development.	Strengths and weaknesses rarely selected for reflection. Otherwise only basic comments relating to own development as a teacher.

Appendix 10

10. Information for participants

Dear

Invitation to Participate in a Research Project – PGCE Mathematics Students 2012-13

I am writing to invite you to participate in the pilot study for a research project, details of which are outlined below. In order to ensure that you are fully aware of the purpose of the study and the nature of your involvement, please take a few minutes to read the following information, before completing, signing and returning the attached consent form.

Title of the study
Aligning assessment in M level teacher education: defining the role of HE in developing the professional teacher

Purpose of the study
This study has emerged as a result of my interest in the way in which professional performance and academic achievement are assessed within PGCE courses. The move to offer Masters level credits for Post Graduate courses of Initial Teacher Education has presented challenges for providers, students and mentors which I am keen to explore in depth.

The study is the basis of my assessment for a Doctorate in Education. The findings will also be used to inform the ongoing review and development of the PGCE courses at University of Bedfordshire. It is intended that the findings will be shared with the wider community of UK Teacher Educators through professional associations and journals.

The study will be undertaken within the academic year 2012-13 and the findings will be presented as a thesis in 2013-14. The report will be shared with all participants.

Method for selecting participants
A key factor in selecting a sample has been ease of access for the researcher and familiarity with the source data. All students who will complete the University of Bedfordshire PGCE Secondary course in June 2013 have been invited. It is important to note that no analysis of the data will be undertaken until after the assessment period and examination board. This is to assure you that the analysis can in no way influence any aspect of your course outcomes or of my role as your tutor.

The nature of the participation
There are three elements to your voluntary participation:

(i) You are invited to give permission for me to hold an electronic copy of your final submission of the reflective writing in your webfolio, which is the means by which you will be assessed in June 2013.

(ii) You are invited to give permission for me to compare the reflective writing in your webfolio with your Profile Review Point (PRP) forms (which are currently held on file within the university). The purpose of the comparison is to explore the correlation between the judgements of professional performance recorded on the PRP forms and the evidence of professional achievement recorded in your reflective writing.

(iii) You are invited to complete a brief questionnaire about the influences of various aspects of the PGCE course on your development as a teacher. The questionnaire is provided on paper and an electronic copy is available on the course VLE.

The intention is to evaluate the ***process***, i.e. the suitability of reflective writing as evidence of professional performance. No judgement will be made about the professional outcomes or academic achievement of individuals. Identities will remain fully protected to ensure that no such judgements are possible.

In order to undertake this research, the ethical guidelines of the British Educational Research Association and the University of Bedfordshire have been followed and ethical approval has been given by the University of Bedfordshire Institute for Research in Education (IRED) Ethical Approval Committee. Confidentiality and anonymity will be maintained within the thesis and in any other related outputs. All participants have the right to withdraw from the study at any time and without explanation. The contributions and/or non-participation will not influence my attitudes or perceptions in my role as tutor. The findings and/or perceptions of individuals will not be used to influence colleagues' views of participants.

If you have any questions about the study please do contact me at Julia.croft@beds.ac.uk

Yours sincerely

Julia Croft

Appendix 11

11. Consent letter

Title of the study
Aligning assessment in M level teacher education: defining the role of HE in developing the professional teacher

Researcher
Julia Croft

I consent to the use of an electronic copy of my final submission of the reflective writing in my webfolio after it has been summatively assessed in June 2013 for the purposes of the research title above.

I consent to a comparison of the reflective writing in my webfolio with my Profile Review Point (PRP) forms (which are currently held on file within the university).

I consent to the use of my responses to the electronic questionnaire.

I understand that:

(i) The purpose of the comparison is to explore the correlation between the judgements of professional performance recorded on the PRP forms and the evidence of professional achievement recorded in your reflective writing
(ii) No analysis of the webfolios will be undertaken until the work has been formally assessed and the outcomes have been ratified at the Examination Board and Scheme Board
(iii) All contributions to the study will be used solely for research purposes and will remain anonymous
(iv) I have the right to withdraw from the study at any time
(v) My contribution and/or non-participation will not influence the attitudes or perceptions of the researcher in her role as tutor, either now or in any future study.
(vi) Findings or perceptions from this study will not be used to influence the views of any other tutor in respect of participants.
(vii) All documentary data and attainment outcomes will be allocated a unique participant identification number, in order to allow the search for correlation
(viii) Documents will be stored securely and used for no other purpose except with the permission of the owner

Name (Please print)

Signature

Date

Appendix 12

12. Ward and McCotter rubric

(Ward and McCotter, 2004:250)

	Routine Self disengaged from change	Technical Instrumental response to specific situations without changing perspective	Dialogic Inquiry part of a process involving cycles of situated questions and action, consideration for others' perspectives, new insights	Transformative Fundamental questions and change
Focus (What is the focus of concerns about practice?)	Focus is on self-centred concerns (how does this affect me?) or on issues that do not involve a personal stake. Primary concerns may include control of students, workload, gaining recognition for personal success (including grades), avoiding blame for failure.	Focus is on specific teaching tasks such as planning and management, but does not consider connections between teaching issues. Uses assessment and observations to mark success or failure without evaluating specific qualities of student learning for formative purposes.	Focus is on students. Uses assessment and interactions with students to interpret how or in what ways students are learning in order to help them. Especially concerned with struggling students.	Focus is on personal involvement with fundamental pedagogical, ethical, moral, cultural,or historical concerns and how these impact students and others.
Inquiry (What is the process of inquiry?)	Questions about needed personal change are not asked or implied; often not acknowledging problems or blaming problems on others or limited time and resources. Critical questions and analysis are limited to critique of others. Analysis tends to be definitive and generalised.	Questions are asked by oneself about specific situations or are implied by frustration, unexpected results, exciting results, or analysis that indicates the issue is complex. Stops asking questions after initial problem is addressed.	Situated questions lead to new questions. Questions are asked with others, with open consideration of new ideas. Seeks the perspectives of students, peers and others.	Long-term ongoing inquiry including engagement with model mentors, critical friends, critical texts, students, careful examination of critical incidents, and student learning. Asks hard questions that challenge personally held assumptions.
Change (How does inquiry change practice and perspective?)	Analysis of practice without personal response – as if analysis is done for its own sake or as if there is a distance between self and the situation.	Personally responds to a situation, but does not use the situation to change perspective.	Synthesises situated inquiry to develop new insights about teaching or learners or about personal teaching strengths and weaknesses leading to improvement of practice.	A transformative reframing of perspective leading to fundamental change of practice.

Appendix 13

13. Annotated extracts for case study students (pilot study)

Student A 2010-11

In my practice, I believe that one are which I have progressed well and shown a particular strength in is the positive relationships that I build and maintain with pupils within the class. This is something that I have been praised for in many lesson observations. It is easy to see my progression in this area; when I began teaching in Placement One, I found talking to the class daunting and found it hard to relate to the pupils. I also think that being able to establish these relationships means that I find it much easier to teach at their level – I find that I can communicate on an appropriate level with the pupils, and this has been beneficial to both them and me. They find it easier to comprehend new concepts, as the language used in the class is at a level that is accessible to them. This was reflected in my PRP4, as a comment in the Subject Knowledge section. Bird and Sultmann (2010) discuss the role of Social Emotional Learning (SEL) and its impact on the learning achieved. They reflect on how the wellbeing of the child and their happiness is directly linked with their willingness to learn and their engagement in the classroom. This is not only outlined by this study, but has also been mirrored in other journals such as Zins et al (2007). I have also had many conversations with staff, who have provided feedback that the pupils in the classroom environment which I create are happy, and this leads to them achieving well within the lesson. (RE 2nd feedback page).

I feel I have also built a positive relationship with pupils through my visit to PGL, a multi activity week residential during which pupils were involved in a wide variety of activities, designed to challenge them, and encourage team work and cooperation. During this week, high expectations were made of their behaviour and I can carry this through to lessons which I have with this particular group of pupils. My third placement school have a particularly values-based school ethos – and it is these values which help to raise the behavioural expectations within the school. Ozolins (2010) discusses the role of values in education, and it is, it seems, optimal in the development of the pupil, and has a very strong relationship with the child reaching their full potential. This is something which I hope to take with me throughout my career; an expectation of pupils in my care to develop in all areas, as well as academic, to become well-rounded individuals within society.

Comment [JC1]: FT – "uses [...] observations to mark success ..." – but does go on to analyse, suggesting shift towards FD

Comment [JC2]: Evidence of dialogic intent i.e. there is a focus on the students, evidence of use of interactions with students and interpretation of ways in which they are learning. FD

Comment [JC3]: Appears to be "[seeking] the perspectives of [...] others". Although it appears to have taken place after the practice on this occasion, the nature of the connection made is synthetic, not superficial, establishing the possibility that the author would continue to develop the synthesis in subsequent experiences. IT

Comment [JC4]: "Personally responds to a situation, but does not use the situation to change perspective" CT (Note: the absence of specific detail of the 'situation' has a reliability impact in assigning this category.)

Student C 2010-11

My teaching journey has enabled me to improve many areas of my practice. Through weekly targets I have focused on one or two areas at a time and gradually they combine to improve my overall practice. My knowledge of assessment has increased, leading to a deeper understanding of the curriculum through to marking books. Differentiation is a recurring target; one which I feel has improved immensely since I began teaching, but has room for more variation within lessons. More prepared planning is something that I believe will help me with this, leading from differentiating by choice and task, as well as by outcome.

My knowledge of formative assessment has improved due to having a top set year 11 class. To familiarise the year 11 group with the GCSE mark-scheme, I often use an exam question as the plenary. This is answered in pairs and then the marks are discussed as a class, often swapping papers and marking another pair's. This enables students to see for themselves where common errors or misconceptions may occur and how to avoid them. Petty (Teaching Today, 2009) uses an analogy of a stroke victim teaching themselves how to open a jam jar again – they must learn for themselves, not have others take over. This fits perfectly with my view of encouraging students to find and correct their own mistakes. I use a similar method with year 9, who are preparing for Module 3.

Comment [JC1]: This opening paragraph would be categorised as 'routine' in isolation but, as the foci addressed here are expanded upon in the later writing, the analysis needs to take a holistic view.

Comment [JC2]: The use of specific episodes informs the categorisation

Appendix 14

14. Attainment of all sample students (pilot study)

ID	Reflective writing Grade	Reflective writing Marks	Reflective writing Referral grade	Professional attainment Mean grade
3	D	6		1.7
4	C	9		1.0
10	C-	8		1.4
12	D+	7		2.8
14	D(6)	4	D(6)	1.7
25	D(6)	4	D-(7)	1.9
26	C+	10		1.9
27	C+	10		2.3
30	B+	13		1.8
34	B-	11		1.8
36	B+	13		1.4
37	B+	13		1.3
39	C+	10		1.7
44	D+(6)	4	D- (7)	1.2
45	C+	10		2.7
47	B+	13		1.7
49	D+	7		1.5
50	C-	8		2.7

Appendix 15

15. Systematic analysis of the Ward and McCotter (2004) citations occurred

Date of Scopus search: 16/04/14													
Number of results : 62													
YEAR				COUNTRY				DOCUMENT TYPE				SUBJECT AREA	
2014	3			United States	14								
2013	8			Spain	8			Article	56			Social Sciences	54
2012	10			United Kingdom	7			Conference Paper	3			Arts and Humanities	9
2011	10			Netherlands	6			Review	2			Computer Science	8
2010	7			Australia	5			Book Chapter	1			Psychology	4
2009	10			Hong Kong	4							Mathematics	3
2008	7			Turkey	4							Medicine	3
2007	4			France	3							Engineering	2
2006	2			Taiwan	3							Chemical Engineering	1
2005	1			Canada	2							Business, Management and Accounting	1
				New Zealand	2							Chemistry	1
				Austria	1								
				Belgium	1								
				Estonia	1								
				Finland	1								
				Germany	1								
				Greece	1								
				Iran	1								
				Malaysia	1								
				South Africa	1								
				South Korea	1								
				Switzerland	1								

Appendix 16

16. NVIVO classification from W&M citations

W&M citations coded as Reflective writing

Analyzing reflection on~for action~ A new approach

reflective communication,

Examining the effects of computer-based scaffolds on novice teachers' reflective journal writing

reflective journal writing

Is reflective writing an enigma~ Can preparing evidence for an electronic portfolio develop skills for reflective practice~

reflective writing

Reflection at the interface of theory and practice~ An analysis of pre-service english language teachers' written reflections

reflective writing

Reflection on the teaching-learning process in the initial training of teachers. Characterization of the issues on which pre-service mathematics teachers reflect

learning portfolio

Student teacher reflective writing~ What does it reveal~

written reports

Using a meta-analysis activity to make critical reflection explicit in teacher education

writing lesson evaluations

Using video-cases to assess student reflection~ Development and validation of an instrument

written expressions

Views on using portfolio in teacher education

portfolio methods

Appendix 17

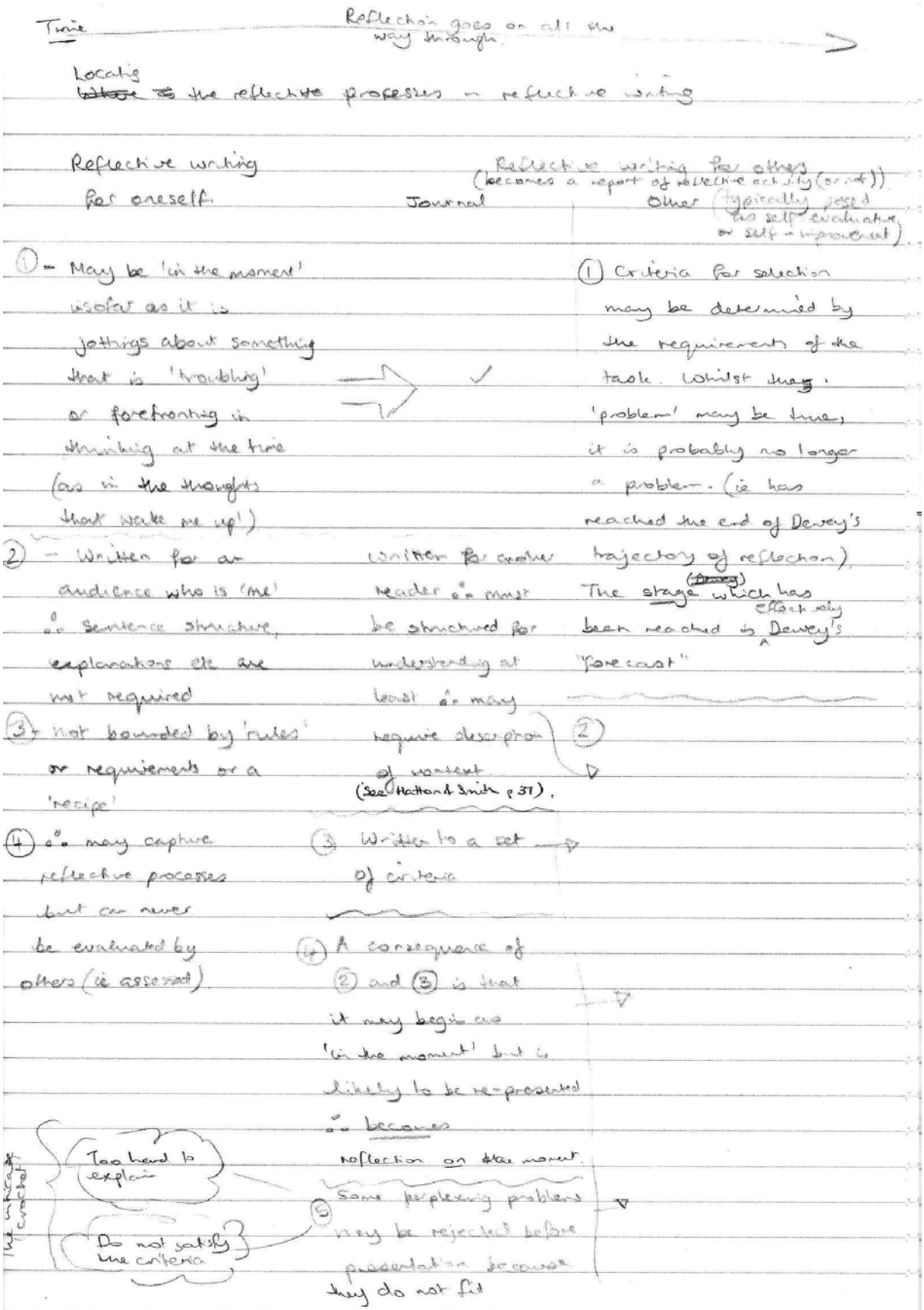
17. Criteria for the Recognition of Evidence for Different Types of Reflective Writing

Hatton and Smith (1995)

Descriptive Writing	• Not reflective • Description of events that occurred / report of literature • No attempt to provide reasons / justification for events
Descriptive Reflection	• Reflective, not only a description of events but some attempt to provide reason / justification for events or actions but in a reportive or descriptive way. For example, "I chose this problem-solving activity because I believe that students should be active rather than passive learners." • Recognition of alternative viewpoints in the research and literature which are reported. For example, "Tyler (1949), because of the assumptions on which his approach rests, suggests that the curriculum process should begin with objectives. Yinger (1979), on the other hand, argues that the task is the starting point." • Two forms: o Reflection based generally on one perspective / factor as rationale o Reflection is based on the recognition of multiple factors and perspectives
Dialogic Reflection	• Demonstrates a 'stepping back' from the events / actions leading to a different level of mulling about, discourse with self and exploring the experience, events and actions, using qualities of judgements and possible alternatives for explaining and hypothesising. Such reflection is analytical or / and integrative of factors and perspectives and may recognise inconsistencies in attempting to provide rationales and critique. For example, "While I had planned to use mainly written text materials I became aware very quickly that a number of students did not respond to these. Thinking about this now there may have been reasons for this. A number of students, while reasonably proficient in English, even though they had been NESB learners, may still have lacked some confidence in handling the level of language in the text. Alternatively, a number of students may have been visual and tactile learners. In any case I found that I had to employ more concrete activities in my teaching." • Two forms as above
Critical Reflection	• Demonstrates an awareness that actions and events are not only located in, and explicable by, reference to multiple perspectives, but are located in, and influenced by multiple historical and socio-political contexts. For example, "What must be recognised, however, is that the issues of student management experienced with this class can only be understood within the wider structural locations of power relationships established between teachers and students in schools as social institution based upon the principle of control. (Smith 1992)"

Appendix 18

18. Written reflection - original reflective jotting



Appendix 19

19. Examples of Dewey's stages within the assessment rubric

'Suggestion'

Extract from the assessment rubric		The connection made with Dewey's construct
D (Level 7)	D (Level 6)	***Suggestion***
Recent and current research ***analysed for its implications for teaching.*** Evidence of analysis of set reading and some other sources.	***Effective use*** is made of set reading and some other sources.	Identifies connections between ideas from reading and teaching experience – thereby demonstrating the capacity to systematically recall episodes from practice and to anticipate or imagine similar episodes in future experience.
Ideas expressed with clarity and accuracy. Referencing mostly sound.	Written expression adequate to convey meaning but may contain inaccuracies. Referencing mostly sound.	
Some analysis of issues underpinning how children learn. Some ***evidence that this is used to develop own practice***.	Some consideration of issues underpinning how children learn and ***reflection on ways in which this might be used to develop own practice***.	As above, systematically relates learning theories to practice-based experience.
Evidence of ability to analyse different learning from the course and deploy those methodologies likely to increase effectiveness of own practice. ***Reflection on how strategies implemented impact upon children's learning***.	Evidence of an ***awareness of the relevance of different learning from the course***. Some attempt to explore the impact of methodologies from the course in own practice.	As above, systematically implements ideas proposed by mentors and tutors in practice.
Strengths and weaknesses analysed and appropriate targets identified. An ***understanding shown of own needs for continuing professional development***.	Evidence of an ***awareness of personal strengths and weaknesses***. Some attempt to ***set targets*** for own development.	Aspects of own development are viewed as connected to ideas and theories about 'desirable' qualities

Indicators of ***ease*** may be located within the recognition of connectivity between different experiences and the anticipation of contexts in which ideas may be applied in the future. Hence there are increasing levels of ***ease of suggestion*** indicated by the increasing levels of readiness with which the connections are made in all rows of the rubric.

‘Intellectualisation’

Extract from the assessment rubric	The connection made with Dewey’s construct
C	***Intellectualisation*** (the synthesis of ideas from different sources)
Clear evidence shown of ***synthesis of recent and current research and evaluation of its impact on own practice.*** Appropriate reading is selected.	Synthesis of research with ideas from practice
Reflections written clearly, accurately and logically. Accurate referencing throughout.	
Ideas about how learners learn are synthesised to inform reflection on teaching approaches and the effectiveness of strategies employed.	Synthesis of ideas from the course with experiences in practice
Evidence of ability to ***synthesise different learning from the course*** in order to increase effectiveness of own practice. Self-direction shown in the proposal of solutions to problems encountered in own practice.	Synthesis of ideas from the course with experiences in practice
Evidence of ***synthesis*** in the identification of areas for continuing professional development. Strengths and weaknesses inform targets and review of own development.	Synthesis of various experiences in practice

‘Hypothesis’

Extract from the assessment rubric	The connection made with Dewey’s construct
B	***Hypothesis*** (an objective but, nevertheless personal, proposal of what is effective)
Critical evaluation of recent and current research and ***its impact on own practice*** A wide range of well-selected reading is evident.	Critical evaluation of the impact of research on own practice involves hypothesising about what has impacted and how
Well organised reflections with clear and precise expression. Accurate referencing throughout.	
Critical analysis of own classroom practice informed by a comprehensive understanding of ideas about the ways in which learners learn.	Critical analysis of own practice involves hypothesising about what is effective
Critical reflection on the learning from the course, evaluating teaching methodologies and ***using*** such evaluation to ***systematically and creatively develop own practice.***	Hypothesising about ways to improve practice through reflection on course content
Critical reflection evident in ***identification of areas for own development***. Self-awareness informs the ***proposal of solutions*** to complex problems encountered in own practice. Ongoing review of strengths and weaknesses ***informs future practice***.	Hypothesising about ways to improve practice through reflection on problems and potential solutions.

Appendix 20

20. Annotated reflective writing submission for participant MA

MA

"Differentiation is achieved by identifying the need of individuals and developing opportunities to guide, encourage and support learning through whatever resources, process and tactics are available." Ross et al (2012). This is something that if to be true for myself, looking back at the time I have spent planning my lessons to ensure that they are accessible to all learners has shown me that differentiation is no easy task. A classroom practitioner must recognise that the "individual learning styles" of their class are what holds the key to effective differentiation and that they must adopt a personalised learning approach to their teaching. Sprenger (2008).

To encourage my students to become active learners in the classroom I have had to create a number of ways to engage and retain the interest of my students, whilst at the same time trying to meet the requirements of their learning style and to. Following advice from a colleague I constructed my lesson plans to accommodate a pupil learning activity section rather than a pupil activity this allowed me to think and write down how the pupils will be learning. This developed my planning skills to actually write down in my lessons how my my pupils will learn from a particular activity. This has also relied heavily on me building and maintaining relationships with my classes so that they feel safe bringing their knowledge and experiences to the open forum of the classroom, as students who feel secure in a classroom environment will more readily engage and share their knowledge ad experiences with a teacher Wright (1970).

In my first placement I focused heavily on trying to identify the needs of all the learners in my classroom, mainly through the use of assessment for learning methods by testing and recording marks. Whilst this gave me a snap shot of what my students were capable of at that current time, it did not allow me to take into account the prior learning or knowledge of

Comment [JC1]: There is long-term ongoing inquiry in this piece, tracking the development of an aspect of practice over two placements, engaging with mentors, peers, students and research. Critical incidents are examined. [Inq-Tra]

Comment [JC2]: Concerned with students. [F-D]
Recognises complexity [Inq-Te]

Comment [JC3]: Concerned with how students are learning [F-D]

In my first placement I focused heavily on trying to identify the needs of all the learners in my classroom, mainly through the use of assessment for learning methods by testing and recording marks. Whilst this gave me a snap shot of what my students were capable of at that current time, it did not allow me to take into account the prior learning or knowledge of my students. Students all have their own skill sets and knowledge that must be developed and encouraged to expand by their teacher through the use of challenging and engaging activities Mastropieri et al (2000). At this stage of my practice I was only using collaborative learning in starter activities and not using it as a method of learning in main classroom teaching activities. After speaking to my mentor I was made aware of how main collaborative learning classroom activities could be a method of more effectively reaching the higher learning abilities of all of the class, building on Vygotsky social constructivist models of learning whereby only the highest levels of mental cognition can only be met in a active social and collaborative environment Wilson (1999). Moreover at this time I was overlooking the importance of students being able to construct knowledge for themselves, by using their past experiences as a guide for their future learning, again in keeping with constructivist models Graham et al (1994). As differentiation in a class is not purely met by a teacher telling his or her students what knowledge they are missing but much rather what they need to do to build on their existing knowledge Wellington et al (2012).

In my second placement the measure of my differentiation skills were put to the test, I been given a bottom set year 9 class with a large variation in ability. I had to think about and recreate activities where my students moved away from completing the same activity where a teacher would just stretch with higher order questions to creating an interactive activity that could meet the needs of all learners. Branched activities were concept that I learned about from a colleague. By allowing students to work together as a group

Comment [JC4]: More interest in how pupils are learning [F-D]
Situated questions lead to new questions [Inq-D]
Open to change [Ins-D]
I have not categorised as deconstructing practice because it is not evident how this problem has been identified.

they specifically needed to progress. I found this to be a really effective method of differentiation, as it did not divide or separate the class or cause divisions in the class, as students could all work on the same activity and determine what they wanted to learn from the activity rather than the teacher telling them what they should learn. This method of teaching also showed me that I can move away for m the traditional methods of higher order questioning as a means for differentiation. It also allowed students to set their own pace, which allowed students to acquire and process knowledge in manner that suited them, without the "pushy" teacher trying move them onto the next activity as quick as possible. After all a unified class regardless of ability is a class where students can all share their knowledge and progress in their learning together Hawkins (2007).

In addition to improving my differentiation skills in my second placemat allowed me to improve and develop my use of praise for motivating students to engage in lessons. Praise itself like any component of a good lesson must be structured and planned; it helps

Comment [JC5]: Uses assessment and interaction with students

Comment [JC6]: Practice and perspectives deconstructed and reconstructed. Insight is evident. [Ins-Tra]
Focus is on personal involvement with pedagogy and impact on students. [F-Tra]

Appendix 21

21. Outcomes and W&M2 characteristics for main study

Subject	Pseudonym	Reflective writing mark	Mean of 8 Teachers' Standards	W&M2 Focus	W&M2 Inquiry	W&M2 Insight	W&M2 impression
En	AA	7	1.0	D	D	Tr	D
Ma	BA	13	1.3	D	D	D	D-Tr
Ma	CA	7	1.0	D-Te	D	D	D
En	DA	10	1.3	R	R	R	R
Ma	EA	7	1.6	R - Te	Te	Te	Te-R
Ma	FA	11	1.0	Te	R	R	R
Sc	GA	9	1.6	Te	Te	Te	Te
Ma	HA	11	1.0	Tr	D	D	D-Tr
Ma	IA	12	1.4	D	Te	Te	Te-D
Sc	JA	15	1.0	D	D	D	D
En	KA	6	2.0	Te	Te	Te	Te
En	LA	9	1.5	D	Te	D	D
Sc	MA	5	1.0	Tr	Tr	Tr	Tr
Sc	NA	7	3.0	Te	Te	Te-D	Te
En	OA	9	1.4	Tr	Tr	Tr	Tr
Ma	PA	7	1.9	Tr	Tr	Tr	Tr
En	QA	14	1.0	R	R-Te	R	R
En	RA	8	1.6	Tr	Tr	Tr	Tr
Ma	SA	8	1.3	Tr	Tr	Tr	Tr
En	TA	10	1.0	R	Te	Te	Te-R
Sc	CB	12	2.0	Tr	D	D	D-Tr
Ma	DB	11	1.0	Te	D	Te	Te-D
En	EB	9	1.3	R	Te	R	R
Ma	FB	10	1.5	Te	Te	D	Te-D
Ma	GB	13	1.0	D	Te	Te-D	Te-D
En	HB	6	1.9	D	D	D	D
En	IB	10	1.0	Te	Te	Te-R	Te
En	JB	7	2.3	Tr	Tr	Tr	Tr
En	KB	10	1.1	D	D	D	D
Sc	LB	9	1.1	D	Te	D	D-Te
Ma	MB	12	1.3	Tr	D	D	D-Tr
En	NB	6	2.5	Te	Te	Te	Te
En	OB	4	1.0	Te	Te	Te	Te
Ma	PB	4	2.5	R	R	R	R
En	RB	6	1.3	Tr	Tr	Tr	Tr
Sc	SB	14	1.9	R	Te	Te	Te-R

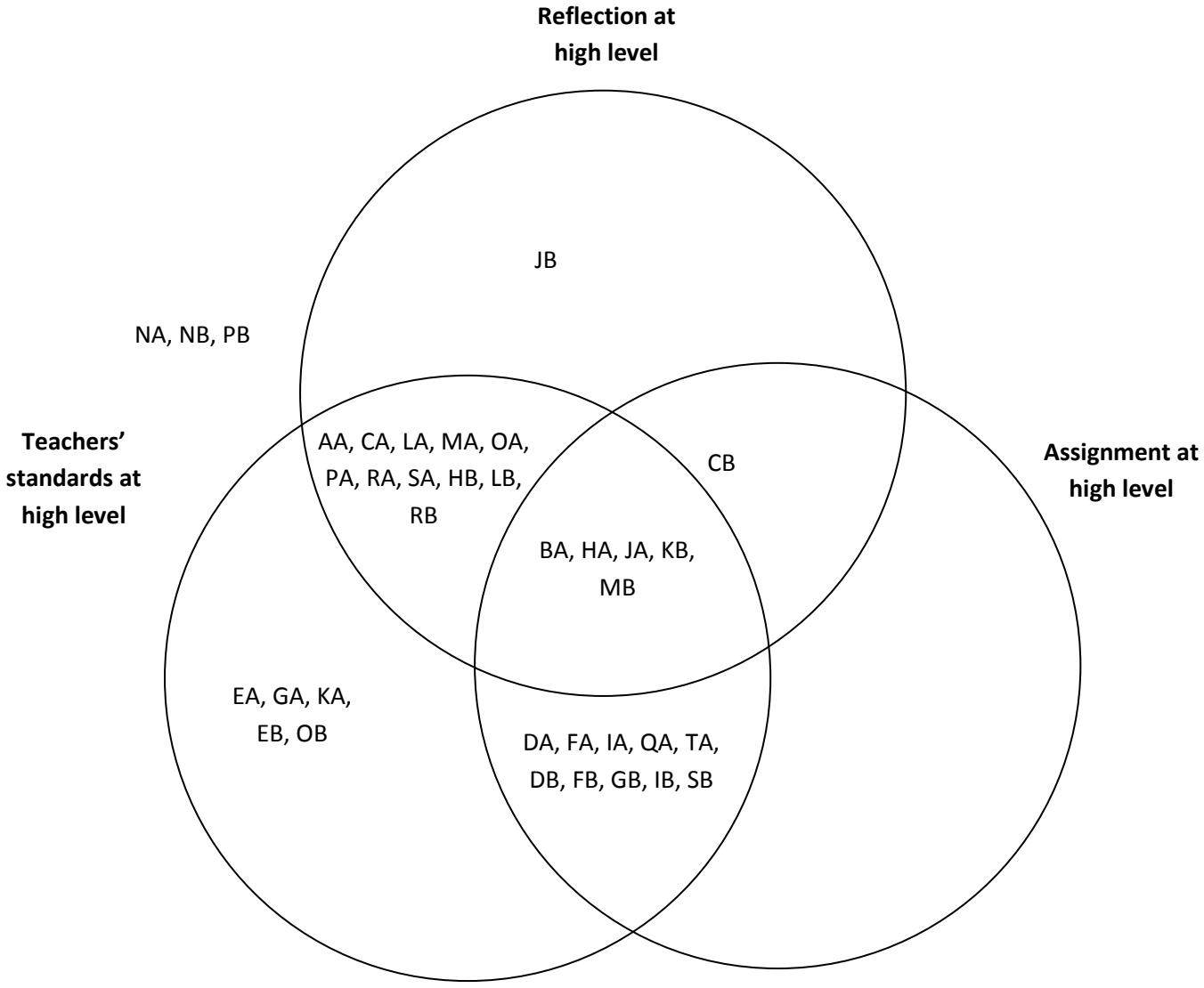
Appendix 22

22. Extract from Teachers' Standards with UCET/NASBTT/HEA grade descriptors (UCET, 2012)

4 Plan and teach well structured lessons - impart knowledge and develop understanding through effective use of lesson time -promote a love of learning and children's intellectual curiosity -set homework and plan other out-of-class activities to consolidate and extend the knowledge and understanding pupils have acquired -reflect systematically on the effectiveness of lessons and approaches to teaching -contribute to the design and provision of an engaging curriculum within the relevant subject area(s).		
1 Outstanding – meets the Standards very well	**2 Good with no significant weaknesses**	**3 Competent but needs support. Shows weakness in some areas**
Those trainees graded as `outstanding' at the end of the programme of ITE may have demonstrated additionally that: They plan lessons that often use well chosen imaginative and creative strategies and that match individuals' needs and interests. They are highly reflective in critically evaluating their practice. They can accurately judge the impact of their practice on individual and groups of learners and can use their evaluation to inform future planning, teaching and learning. They show initiative in contributing to curriculum planning and developing and producing effective learning resources in their placement settings.	**Those trainees graded as `good' at the end of the programme of ITE may have demonstrated additionally that:** They show a willingness to try out a range of approaches to teaching and learning. They plan lessons that take account of the needs of groups of learners and individuals, through the setting of differentiated learning outcomes, carefully matching teaching and learning activities and resources to support learners in achieving these intended learning outcomes. They know how to learn from both successful and less effective lessons through their systematic evaluation of the effectiveness of their practice, including its impact on learners. They make a positive contribution to the development of curriculum and resources in their placement settings.	**By the end of the programme of ITE, all those trainees recommended for the award of QTS will have demonstrated that:** They employ a range of teaching strategies and resources. They plan individual lessons that are appropriately structured to support pupils in developing their knowledge, skills, understanding, interest and positive attitudes. When teaching they maintain the pace of the learning, are able to respond flexibly to what is happening in the classroom and have the confidence to adapt their teaching in order to respond to the needs of the learners. They can create an environment in which the learners are usually engaged. They understand how homework or other out of class work can sustain learners' progress and consolidate learning and can design and set appropriate tasks. They review and reflect on their own planning and teaching to prepare future activities and tasks which build on and sustain progression in pupils' learning. They work collaboratively with more experienced colleagues, where appropriate, to adapt and / or develop the school's medium term plans, schemes of work, curriculum frameworks etc.

Appendix 23

23. Venn diagram showing participants' strengths

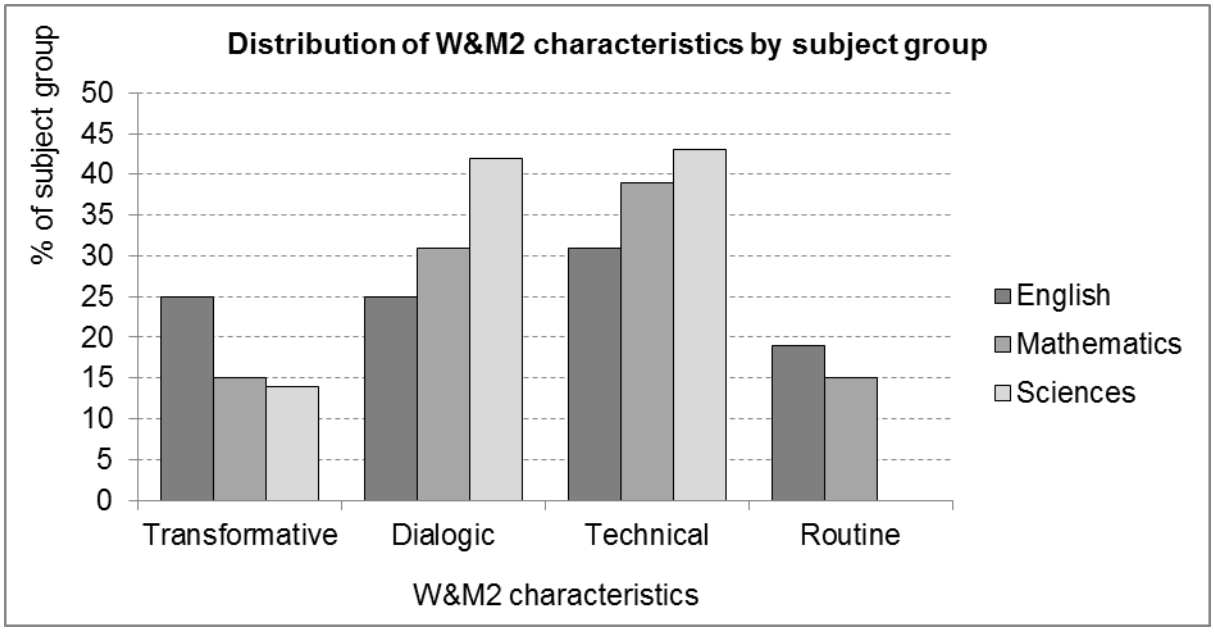


Appendix 24

24. Participant outcomes by subject

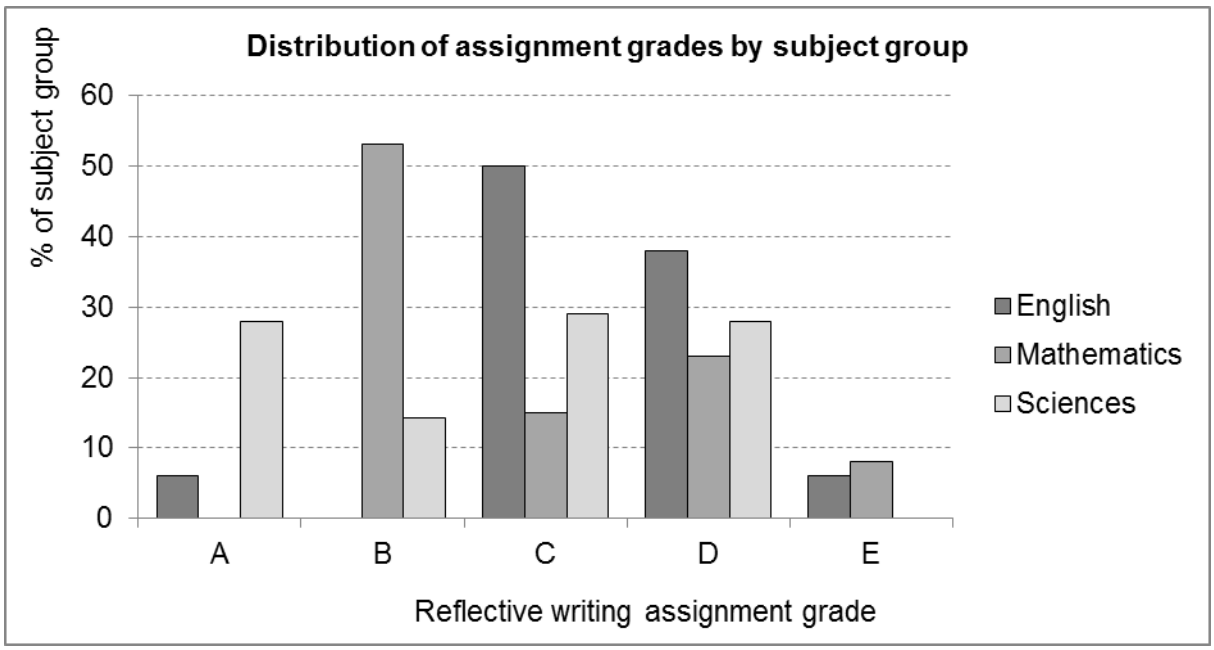
Distribution of W&M2 characteristics by subject group

	Participants in each category as percentage of subject group (count in parentheses)		
W&M2 characteristics	**English**	**Mathematics**	**Sciences**
Tr	25 (4)	15 (2)	14 (1)
D-Tr	0	23 (3)	14 (1)
D	25 (4)	8 (1)	14 (1)
D-Te	0	0	14 (1)
Te-D	0	31 (4)	0
Te	25 (4)	0	29 (2)
Te-R	6 (1)	8 (1)	14 (1)
R	19 (3)	15 (2)	0



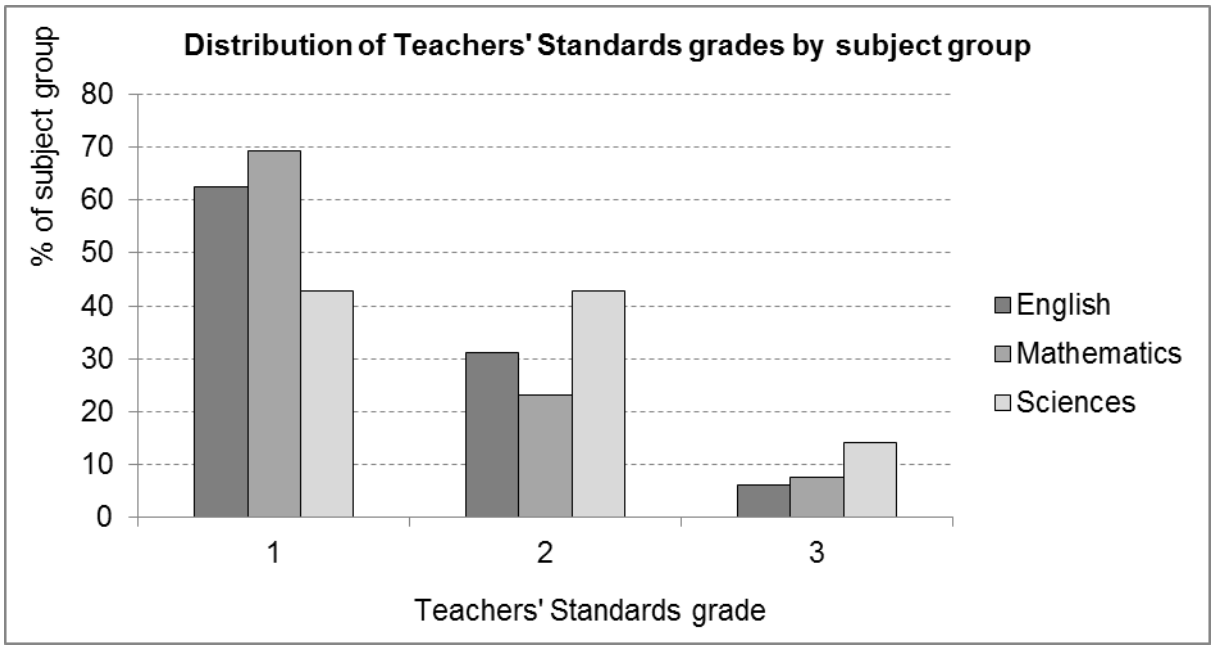
Distribution of reflective writing assignment grades by subject group

	Participants who achieved each grade as a percentage of the subject group (count in parentheses)		
Reflective writing assignment grade	**English**	**Mathematics**	**Sciences**
A	0	0	14 (1)
A-	6 (1)	0	14 (1)
B+	0	15 (2)	0
B	0	15 (2)	14 (1)
B-	0	23 (3)	0
C+	25 (4)	8 (1)	0
C	19 (3)	0	29 (2)
C-	6 (1)	8 (1)	0
D+	13 (2)	23 (3)	14 (1)
D	25 (4)	0	0
D-	0	0	14 (1)
E	6 (1)	8 (1)	0



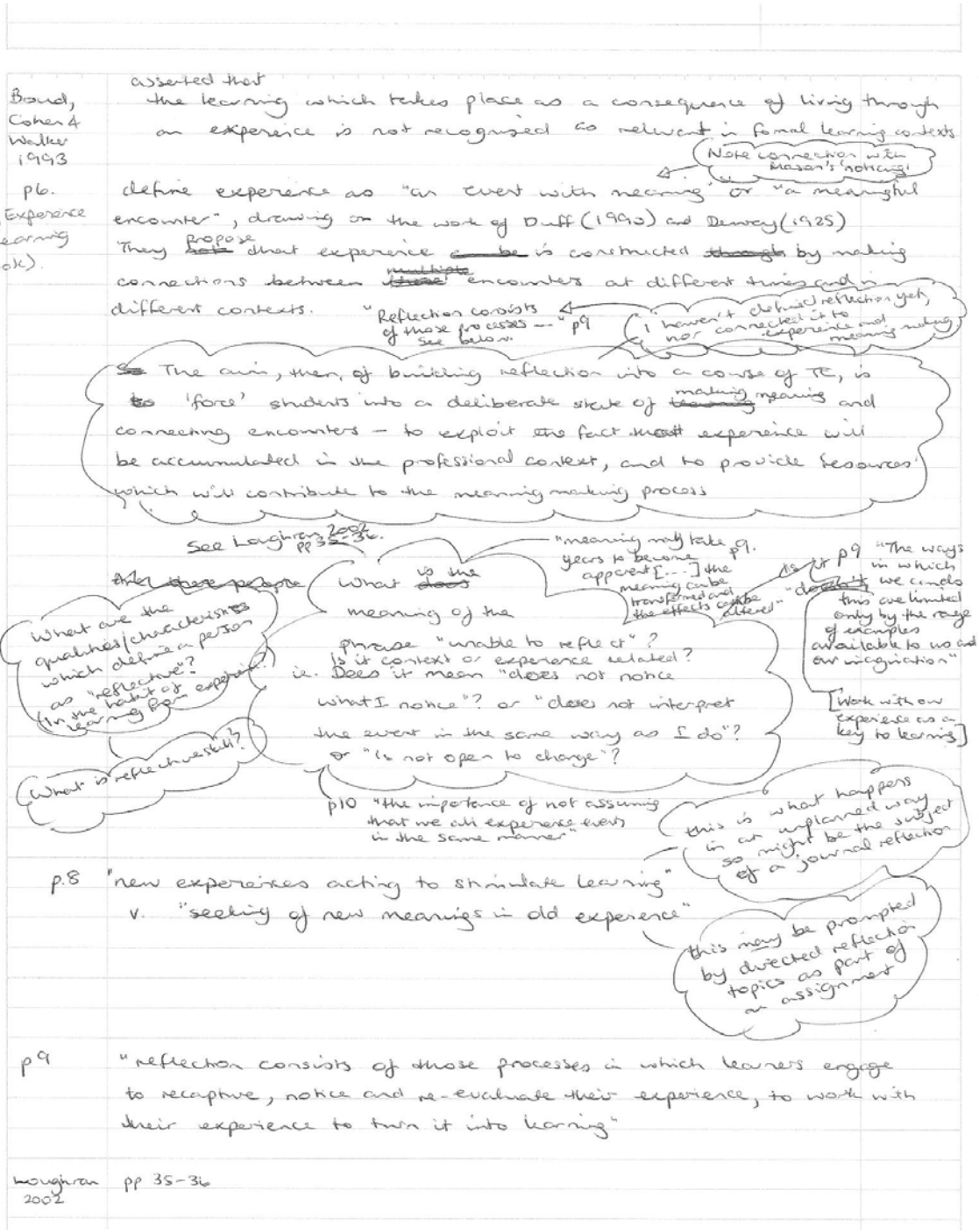
Distribution of Teacher Standards' grades by subject group

	Participants who achieved each grade as a percentage of the subject group (count in parentheses)		
Mean Teachers' Standards grade	**English**	**Mathematics**	**Sciences**
1.0	31 (5)	38 (5)	29 (2)
1.1	6 (1)	0	14 (1)
1.3	19 (3)	23 (3)	0
1.4	6 (1)	8 (1)	0
1.5	6 (1)	8 (1)	0
1.6	6 (1)	8 (1)	14 (1)
1.9	6 (1)	8 (1)	14 (1)
2.0	6 (1)	0	14 (1)
2.3	6 (1)	0	0
2.5	6 (1)	8 (1)	0
3.0	0	0	14 (1)



Appendix 25

25. Reflective log - example of writing for self



Appendix 26

26. Learning outcomes for new course

From Teachers' Standards descriptors (UCET 2012) for "good" (because we are required to locate 'threshold' outcomes)

TS2
They assume responsibility for the attainment, progress and outcomes of the pupils they teach.

TS3
They are critically aware of the need to extend and update their subject, curriculum and pedagogical knowledge and know how to employ appropriate professional development strategies to further develop these in their early career.

TS4
They know how to learn from both successful and less effective lessons through their systematic evaluation of the effectiveness of their practice, including its impact on learners.

TS8
They are pro-active in terms of their own professional learning and value the feedback they receive from more experienced colleagues, using it to develop their own teaching further.

Institutional requirements for 2 learning outcomes (LOs) – Level 4
LO1 – Knowledge and understanding
Select and describe critical incidents from your practice as a teacher, valuing feedback and exploring evidence of the impact on pupils in order to further develop your pedagogical knowledge

LO2 – Application
Reflect on your progress as a leader of learning, using feedback from others and theories about learning to evaluate the effectiveness of your practice and propose developments.

Institutional requirements for 2 LOs – Level 5
LO1 – Knowledge and understanding
Analyse critical incidents from your practice as a teacher, valuing feedback and exploring evidence of the impact on learning in order to further develop your pedagogical knowledge

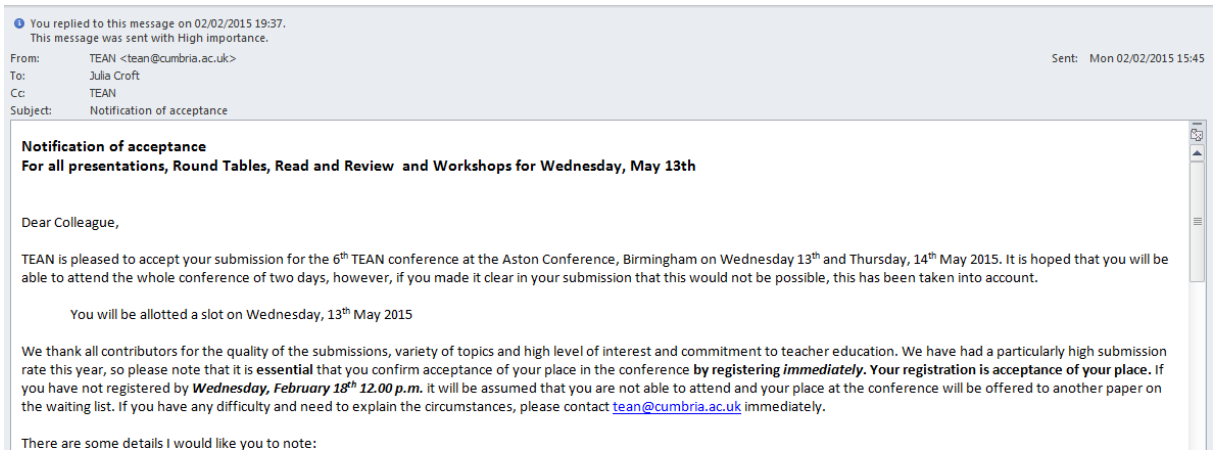
LO2 – Application
Assess your progress as a teacher using reflection, pupil achievement and feedback from others to evaluate the effectiveness of your practice and propose developments.

Institutional requirements for 2 LOs – Level 6
LO1 – Knowledge and understanding
Examine critical incidents from your practice as a teacher, valuing feedback and exploring evidence of the impact on learning in order to further develop your pedagogical knowledge

LO2 – Application
Take responsibility for your own learning and development using reflection, pupil achievement and feedback from others to systematically evaluate the effectiveness of your practice, appraise alternatives and propose developments.

Appendix 27

27. TEAN workshop and BERA presentation confirmations



You replied to this message on 02/02/2015 19:37.
This message was sent with High importance.

From: TEAN <tean@cumbria.ac.uk> Sent: Mon 02/02/2015 15:45
To: Julia Croft
Cc: TEAN
Subject: Notification of acceptance

Notification of acceptance
For all presentations, Round Tables, Read and Review and Workshops for Wednesday, May 13th

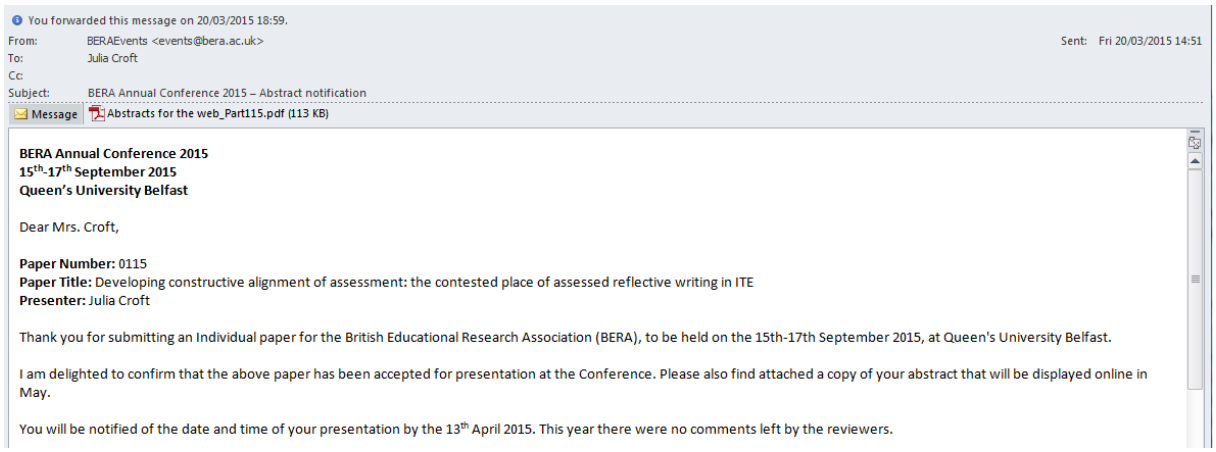
Dear Colleague,

TEAN is pleased to accept your submission for the 6th TEAN conference at the Aston Conference, Birmingham on Wednesday 13th and Thursday, 14th May 2015. It is hoped that you will be able to attend the whole conference of two days, however, if you made it clear in your submission that this would not be possible, this has been taken into account.

You will be allotted a slot on Wednesday, 13th May 2015

We thank all contributors for the quality of the submissions, variety of topics and high level of interest and commitment to teacher education. We have had a particularly high submission rate this year, so please note that it is **essential** that you confirm acceptance of your place in the conference **by registering *immediately*. Your registration is acceptance of your place.** If you have not registered by ***Wednesday, February 18th 12.00 p.m.*** it will be assumed that you are not able to attend and your place at the conference will be offered to another paper on the waiting list. If you have any difficulty and need to explain the circumstances, please contact tean@cumbria.ac.uk immediately.

There are some details I would like you to note:



You forwarded this message on 20/03/2015 18:59.

From: BERAEvents <events@bera.ac.uk> Sent: Fri 20/03/2015 14:51
To: Julia Croft
Cc:
Subject: BERA Annual Conference 2015 – Abstract notification
Message Abstracts for the web_Part115.pdf (113 KB)

BERA Annual Conference 2015
15th-17th September 2015
Queen's University Belfast

Dear Mrs. Croft,

Paper Number: 0115
Paper Title: Developing constructive alignment of assessment: the contested place of assessed reflective writing in ITE
Presenter: Julia Croft

Thank you for submitting an Individual paper for the British Educational Research Association (BERA), to be held on the 15th-17th September 2015, at Queen's University Belfast.

I am delighted to confirm that the above paper has been accepted for presentation at the Conference. Please also find attached a copy of your abstract that will be displayed online in May.

You will be notified of the date and time of your presentation by the 13th April 2015. This year there were no comments left by the reviewers.

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